Managerial capabilities of the home base in an intra-organisational global network

Mykhaylenko, Alona

DOI (link to publication from Publisher):
10.5278/vbn.phd.engsci.00061

Publication date:
2016

Document Version
Publisher's PDF, also known as Version of record

MANAGERIAL CAPABILITIES OF THE HOME BASE IN AN INTRA-ORGANISATIONAL GLOBAL NETWORK

BY
ALONA MYKHAYLENKO

DISSERTATION SUBMITTED 2016

AALBORG UNIVERSITY
DENMARK

MANAGERIAL CAPABILITIES OF THE HOME BASE IN AN INTRA-ORGANISATIONAL GLOBAL NETWORK

by

Alona Mykhaylenko

AALBORG UNIVERSITY
DENMARK

Dissertation submitted

Thesis submitted: January 6, 2016

PhD supervisor: Prof. Brian Vejrum Wæhrens,
Aalborg University

Assistant PhD supervisor: Prof. John Johansen,
Aalborg University

PhD committee: Associate Professor Cheng Yang (Chairman)
Aalborg University, Denmark
Professor Torben Pedersen
Bocconi University, Italy
Professor Mats Gottfrid Magnusson
KTH Royal Institute of Technology, Sweden

PhD Series: Faculty of Engineering and Science, Aalborg University

ISSN (online): 2246-1248
ISBN (online): 978-87-7112-457-6

Published by:
Aalborg University Press
Skjernvej 4A, 2nd floor
DK – 9220 Aalborg Ø
Phone: +45 99407140
aauf@forlag.aau.dk
forlag.aau.dk

Printed in Denmark by Rosendahls, 2016

ENGLISH SUMMARY

The challenges and opportunities of globalisation tempt firms to reconfigure their operations and relocate (or offshore) various activities to the most advantageous destinations. Such offshore operations tend to gradually become complex and intertwined, leading to the transition of organisations towards globally dispersed network structures. For many such organisations, the home base (HB) has historically served as the center of technological and organisational knowledge, as well as the creator and manager of globally dispersed operations. However, little is known about how and when the HB develops such global network management capabilities, as well as the possible effects of the inherent network dynamism on such capabilities. Focusing, in particular, on the global intra-organisational networks led by the HB, this PhD thesis investigates how the network management capabilities of the HB change in the process of its global intra-organisational network evolution. In particular, the four papers constituting this thesis investigate how global intra-organisational networks evolve, how the types of network management capabilities of the HB change along with such network evolution, and how such evolution impacts the effectiveness of the existing managerial capabilities of the HB. The research is built upon several theoretical foundations and research streams, including the internationalisation theory, networked MNE-related research, and the theory of organisational capabilities. This investigation was conducted through a retrospective longitudinal case study of one Danish original equipment manufacturer and its three subsidiaries in China, Slovakia, and the US. The findings, first of all, support, extend, and modify the revised Uppsala globalisation model with regard to the types of experiential knowledge enabling the intra-organisational network evolution process, its drivers, and relationships between the parts of the model. The findings also suggest the existence of distinguishable evolutionary stages. Additionally, the results indicate that changes in particular network configuration elements require particular managerial capabilities from the HB. In relation to this, the thesis suggests a typology of intra-organisational network configurations and corresponding HB network management capabilities. Finally, the findings show that the contextual differences (spatial, cultural, and technological distances) among the network resources, on which the HB managerial capabilities are based, impact the effectiveness of these capabilities through affecting the mechanism of their development and sustainment. Changes in the network make these differences a constantly reoccurring challenge.

DANSK RESUME

Udfordringerne og mulighederne forbundet med globalisering frister virksomheder til at rekonfigurere deres værdikæde og udflytte (eller offshore) forskellige aktiviteter til den mest fordelagtige lokation. Sådanne offshore enheder har en tendens til gradvist at blive mere komplekse og indbyrdes forbundne, hvilket medfører at organisationer gradvist overgår til at fungere som globalt distribuerede netværksstrukturer. I mange sådanne organisationer har hjemmebasen (HB) historisk tjent som videnscenter for teknisk og organisatorisk viden, samt som skaber og leder af den globalt distribuerede værdikæde. Imidlertid er viden omkring hvordan og hvornår HB udvikler sådanne globale netværksledelseskapabiliteter samt de mulige effekter af den iboende netværksdynamik på disse kapabiliteter begrænset. Med fokus rettet på det HB styrede globale intra-organisatoriske netværk, undersøger nærværende ph.d.-afhandling hvordan HB's netværksledelseskapabiliteter forandres undervejs i udviklingen af det globale intraorganisatoriske netværk. Især undersøger de fire artikler, der udgør denne afhandling, hvordan globale intra-organisatoriske netværk udvikler sig, hvordan typen af HB's netværksledelseskapabiliteter forandres sideløbende med denne udvikling, og hvordan et udviklingsforløb påvirker virkningsfuldheden af HB's eksisterende ledelseskapabiliteter. Forskningen bygger på flere teoretiske grundlag og retninger, herunder internationaliseringsteorien, forskning i multinationale netværk samt teorien om organisatoriske kapabiliteter. Undersøgelsen udførtes som et retrospektivt longitudinalt case studie af en dansk OEM virksomhed og dennes tre datterselskaber i Kina, Slovakiet og USA. Først og fremmest støtter, udvider og korrigerer resultaterne den reviderede Uppsala model for globalisering i forhold til de typer af erfaringsbaseret viden, der muliggør udviklingen af det intra-organisatoriske netværk, udviklingsprocessens drivkræfter, samt de indbyrdes relationer mellem dele af modellen. Resultaterne peger også på eksistensen af distinkte udviklingsfaser. Derudover indikerer resultaterne tillige at forandringer i specifikke netværkskonfigurationselementer kræver specifikke ledelseskapabiliteter i HB. Endelig viser resultaterne, at kontekstuelle forskelle (geografiske, kulturelle og teknologiske forskelle) mellem de netværksressourcer som HB's ledelseskapabiliteter bygger på, påvirker virkningsfuldheden af disse kapabiliteter ved at påvirke disses udviklings- og vedligeholdelsesmekanismer. I kraft af netværkets udvikling udgør sådanne forskelle til stadighed nye udfordringer.

ACKNOWLEDGEMENTS

I would like to acknowledge many people who made this work possible. First of all, I would like to express my sincere and deepest gratitude to my supervisor, Prof. Brian Vejrum Wæhrens, and my co-supervisor, Prof. John Johansen, for their invaluable support, guidance and advice at all stages of this challenging and exciting journey.

I would also like to thank the case company for their time and commitment to our cooperation during this project.

My sincere gratitude also goes to the editors and reviewers of the International EurOMA Conference, of the APMS International Conference in Advances in Production Management Systems, of the Strategic Outsourcing: An International Journal and of the Baltic Journal of Management for their input into shaping and improving the papers, constituting this thesis.

I would also like to thank my colleagues and fellow PhD students at the Center for Industrial Production at Aalborg University for creating a friendly and inspiring environment to be working in.

And finally, my deepest appreciation goes to my family and friends, who have always believed in me and supported me through the challenges of this work.

STRUCTURE OF THE THESIS

This thesis is based on a compendium of research papers and consists of two parts. Part 1 is a cover, which provides the background for the present research, elaborates on certain issues addressed in the papers, and details the research design. It also summarizes the research outcomes in relation to and beyond those described in the papers. Part 2 represents four research papers constituting this thesis.

TABLE OF CONTENTS

PART 1. INTRODUCTION……..15

CHAPTER 1. SETTING THE SCENE…….17

1.1. Offshoring phenomenon and the related research……17

1.2. Global operations networks and how they are managed 19

1.2.1. Global operations networks and the related research..... 20

1.2.2. Managing global operations networks 22

1.3. Challenges of offshoring and globally dispersed operations: A need for new capabilities and the impact on the existing ones 26

1.4. Purpose of the present study 28

CHAPTER 2. FRAMING OF THE RESEARCH QUESTIONS……31

2.1. The importance of network management capabilities 32

2.2. Approaches to network management..... 35

2.2.1. Optimistic view on the ability of the focal firm to manage the network.. 35

2.2.2. Pessimistic view on the ability of the focal firm to manage the network 37

2.2.3. Contingency view on the ability of the focal firm to manage the network 38

2.2.4. Choosing the approach to network management for the present work.. 39

2.3. Defining network management capabilities..... 40

2.3.1. Organisational capabilities 40

2.3.2. Network management capabilities..... 41

2.4. Formulating the research questions 43

2.4.1. Research gaps and opportunities 43

2.4.2. Focus on the global intra-organisational network and the home base ... 48
2.4.3. Formulating the research questions ... 50
2.4.4. Research questions and the associated literature ... 51
2.5. Other delineations of the research ... 54

CHAPTER 3. RESEARCH DESIGN AND METHODS……57
3.1. Quantitative inquiry ... 57
3.2. Qualitative inquiry: The overall strategy ... 58
3.2.1. An exploratory case study ... 58
3.2.2. Researching through systematic combining ... 59
3.3. Research design: Single embedded case study……61
3.3.1. Rationale for the single case study and the choice of the case company. ... 62
3.3.2. Embedded cases ... 65
3.3.3. The overall research flow ... 66
3.3.4. The unit of analysis ... 67
3.4. Data collection ... 68
3.5. Analytic strategies and techniques ... 73
3.6. Quality of the research design ... 77
3.6.1. Construct validity ... 77
3.6.2. Internal validity ... 78
3.6.3. External validity ... 78
3.6.4. Reliability ... 79

CHAPTER 4. THE CASE COMPANY: GENERAL INFORMATION……81

CHAPTER 5. DISCUSSION AND CONCLUSIONS……85
5.1. Theoretical contributions ... 85
5.2. Managerial Implications ... 93
5.3. General conclusions ... 96

5.4. Limitations and further research 102

REFERENCES……105
PART 2. COLLECTION OF RESEARCH PAPERS…….125

LIST OF FIGURES IN PART 1

Figure 1. Basic types of designs for case studies (adopted from Yin (2003))……61

Figure 2. Schematic representation of theoretical fields informing the research in Paper 1, depicting contributions on their intersections……87

Figure 3. Schematic representation of theoretical fields informing the research in Paper 2, depicting contributions on their intersections……....89

Figure 4. Schematic representation of theoretical fields informing the research in Paper 3, depicting contributions on their intersections……91

Figure 5. Process ensuring the sustainability of the HB managerial capabilities……94

PART 1. INTRODUCTION

CHAPTER 1. SETTING THE SCENE

This chapter is aimed at setting the scene for the investigation conducted in this thesis. It also strives to inform the reader about the context and the existing research leading to the main queries and purpose of this work. Section 1.1 introduces the origins of the offshoring phenomenon, as well as its drivers and the variety of strategic decisions it involves. It points out the most recent trends of growing complexity of the offshore operations, which can best be described as the emergence of global operations networks. Such trends emphasise the importance of research focused on the global operations networks and how they can be managed. Section 1.2 provides an overview of the several research streams on global operations networks, including the international business (IB) research and network multinational enterprises (MNEs), international manufacturing networks (IMN), and global value chains (GVC). This section also details their perspective on the issues of managing the global operations networks, and highlights the main topics, challenges, and research gaps. It shows that the issues of managing the global operations networks, including the capabilities required for this, are emphasised as particularly important in the extant research, but are rather understudied. Section 1.3 discusses that having globally dispersed operations not only requires new kinds of skills and capabilities, but can also impact the existing capability base of the firm. And finally, the concluding Section 1.4 summarises the issues addressed in the previous sections to formulate the main query and purpose of this work.

1.1. OFFSHORING PHENOMENON AND THE RELATED RESEARCH

Companies have been practicing business internationally for many years. Systematic cross-border trading dates back to as far as the Middle Ages, while globalisation, in the understanding that we have today, began in the late 19th century (Wach, 2014). However, only since the 1960s has this term started to be widely used by the researchers in various scientific fields, as well as by business practitioners. The fall of trade barriers, simplification of transportation, and advances in communication technologies enabled companies to go global. They received an opportunity to reap numerous advantages, like access to raw materials, lower labour costs, availability of skilled employees, and opportunities for intensive market expansion (Cheng et al.,

2015). Explosive intensification of international trade and foreign direct investment, resulting in the globalisation of markets, gave rise to the multinational enterprise (MNE). As a result, for several decades international business research revolved around explaining internationalisation and operations of the MNEs, including internationalisation theory (Buckley, 1990), transaction cost theory (Williamson, 1971), eclectic theory (Dunning, 2001), internationalisation process model (Johanson and Vahlne, 1977), and so on.

Over the past decade, liberalisation of international trade, economic and regulatory reforms in emerging economies, intensification of global competition, and advances in communication technology have created a new wave of globalisation – a trend of offshoring (Aron and Singh, 2005; Farrell, 2005). Offshoring entails companies fine-slicing their activities into discrete pieces and relocating them to the most advantageous destinations abroad. Such relocation may occur on the intrafirm basis to the wholly-owned facilities (captive offshoring) or to third-party providers (offshore outsourcing) (Contractor et al., 2010). Moreover, not only large MNEs started to be involved in operations on the international scale, but also small and medium enterprises gained access to the advantages of globalisation. Additionally, having started with the simple manufacturing tasks, today companies increasingly offshore the high value-adding activities, such as innovation (Jensen, 2009; Lewin et al., 2009; Maskell et al., 2007). Hence, the phenomenon of offshoring has received significant attention in both theory and practice.

In terms of the focus of the studies in the research streams concerned with offshoring, most of them can be categorised as investigating the drivers of offshoring (Kedia and Mukherjee, 2009; Lewin et al., 2009), choice of the offshore location (Bunyaratavej et al., 2008; Farrell, 2006), choice of the function or activity to be offshored (Maskell et al., 2007; Mol, 2005), and decisions about how the reconfigured value chain and its activities are to be reintegrated: in essence, the choice of the governance mode (Hutzschenreuter et al., 2011; Martínez-Noya and García-Canal, 2011). These issues represent the 'Why, where, what, and how?' questions of offshoring. Theories often used for explaining such choices include, for example, the Disintegration-Location-Externalisation (DLE) framework by Kedia and Mukherjee (2009), explaining the offshoring drivers; the eclectic paradigm (Dunning, 2001) for the choice of the offshoring location; Resource-Based View (RBV) (Barney, 1991; Prahalad and Hamel, 2006) for the choice of the activity to be offshored; and Transaction Cost Economics (TCE, Williamson, 1971) for the choice of the offshoring governance mode.

Despite the wide range of recommendations on strategic choices targeted at attaining offshoring benefits, empirical evidence often shows ambiguous results, indicating

the need for further research (Busi and McIvor, 2008). The relationships between offshoring and firms' performance have been reported as positive (Lacity and Willcocks, 2014; Nieto and Rodríguez, 2011), insignificant (Gilley and Rasheed, 2000; Mol et al., 2005), and negative (Funk et al., 2010; Kotabe et al., 2008). Such results suggest that different choices that companies make in offshoring might achieve equally good (or bad) outcomes. Some authors argue that this is a natural and inevitable consequence of offshoring being a learning process (Lacity et al., 2008). Another explanation may be that the expected offshoring benefits may be offset by the unexpected costs and capability requirements of coordinating, integrating, and managing newly established global operations (Contractor et al., 2010; Mudambi and Venzin, 2010). The importance of this issue has raised questions regarding what happens following the decision to offshore, and how prepared and capable the company is to integrate and manage its global operations networks (Mugurusi and de Boer, 2013). Such considerations have fuelled a research stream, which is focused on the global operations networks and how they are managed.

1.2. GLOBAL OPERATIONS NETWORKS AND HOW THEY ARE MANAGED

As a result of offshoring initiatives, disaggregation and dispersion of activities led to the shift in the firms' focus from individual to collective forms of organisation – network structures (Ernst and Kim, 2002). This occurred because, on one hand, dispersion and specialisation of organisations serve as important drivers of learning, development, and innovation. On the other hand, significant global spread of activities can overwhelm the capacity of the offshoring firms to manage disparate and unconnected operations. They can also miss out on the potential benefits of synergies of such activities, economies of scope, as well as global learning potentials, crucial in the dynamic and increasingly competitive international business environment. In light of this, the issues of growth and spread of offshoring started giving way to the matters of organisational consolidation, integration, and management of existing complex manufacturing, research and development (R&D), and service structures (Gammeltoft, 2006). In fact, the image of the firm, which has given way to a network of activities located in different countries (Ferdows, 1997; Herrigel and Zeitlin, 2010), is common in the global economy of the present. Much academic and managerial attention has been focused since that time on the operational and strategic management of global operations networks. This trend has found reflection in and interest from numerous streams of research: international

business, strategic management, supply chain and operations management, manufacturing engineering, and others.

Further, Section 1.2.1 will provide a more detailed overview of several research streams on global operations networks, including international business (IB) research and network multinational enterprises (MNEs), international manufacturing networks (IMN), and global value chains (GVC) research streams. All together, they provide a comprehensive picture of the global operations networks from both intra- and inter-organisational perspectives, as well as covering both strategic and operational issues. Section 1.2.2 will consider the views regarding managing global operations networks expressed by these research approaches.

1.2.1. GLOBAL OPERATIONS NETWORKS AND THE RELATED RESEARCH

International business research and the network MNEs

In the context of the challenges and opportunities of globalisation, international business (IB) research concerned with the operations of multinational enterprise (MNE) has been discussing the emergence of its new form since the late 80's. This new organisational model would allow pursuing the all-encompassing ambitions of local adaptation and global efficiency without trade-offs, making such an MNE 'omnipotent' (Pihl and Paulsson, 2014). Such new organizations were discussed as networks – both in a metaphorical sense (reflecting the interconnectedness of the units within the organization, as well as with the environment) and as an approach to studying them as a multiplicity of relationships existing among the units in an MNE (Ghoshal and Bartlett, 1990).

Pihl and Paulsson (2014) provide a comprehensive overview of the various approaches to the 'omnipotent' MNE developed by different authors through the years, such as 'metanational', 'differentiated network', the 'network firm', and many others. One of the most well-known works describing the new MNE model was the 'transnational solution' suggested by Bartlett and Ghoshal (1998). The 'omnipotence' of the transnational solution was supposed to be achieved by selective centralisation of resources and competencies at home and abroad, distribution of other resources across many national operations, their integration through interdependencies and complex systems of coordination and cooperation, shared perspectives, and rich and complex communication at all levels of the organisation. The continuous interaction and resource, information and people flows

among the organisational units were expected to promote organisational integration and worldwide learning. Therefore, the resource of the transnational were dispersed, specialised and integrated. This made the authors describe such an organisation as an 'integrated network'.

International manufacturing networks (IMN) research stream

In a vein similar to IB research**,** the international manufacturing networks (IMN) research stream has been addressing the internal intra-organisational network, but on the operational level. This research stream has been traditionally focused on a separate plant and how to achieve effective and efficient manufacturing within it. This stream, however, also considers manufacturing systems spanning several plants within an organisation. It addresses the strategic roles of the plants and their relationships to the HQ, to each other, to other functions in the organisation, and to various third parties cooperating with the firm (Cheng et al., 2015; Ferdows, 2014). This research stream seeks to extend the existing manufacturing system concepts to account for the global dispersion of manufacturing and interconnectedness of separate facilities resulting in the factory networks (Ferdows 2008; Shi, 2003; Vereecke et al., 2006). Therefore, it offers insights on how to spread production activities globally and to create a strategic direction for the individual factories in the network. However, new managerial challenges are created due to the interconnectedness of the factories in such networks and the fact that changes and managerial practices at one factory in such a network may affect other network members. Moreover, currently the research focus is shifting from manufacturing activities spread on a global basis to include other functions in the organization, which also are represented as global networks of related activities (Cheng et al., 2014).

Global value chains (GVC) research stream

The perception of the changing organisational form of the MNE is coherent with the more general trends of firms joining and operating within larger networks. Moreover, the popularity of the view on networks as coordinating mechanisms, alternative to markets and hierarchies, has grown, as well. And while MNE-focused research is mainly concerned with intra-organisational networks, the research streams adopting the so-called global value chain (GVC) perspective have a broader view. They are focused on the global sourcing, rather than on internationalisation via hierarchy; thus, they address the inter-firm networks. The GVC approach focuses on the nature and content of the sequences of value-added activities performed by different companies to create and deliver a product to a customer. Therefore, the focus is less on the individual companies, and more on the links interconnecting

them (De Marchi et al., 2014; Dyer and Nobeoka, 2000; Plambeck and Taylor, 2005). In the context of the GVC, when a company offshores or offshore outsources certain activities, the reconfiguration of its value chain occurs. In its extreme, such reconfiguration results in a specialised network of highly differentiated but interconnected network actors performing particular value activities. Consequently, one of the main tasks and challenges of the offshoring firm is to find and enact the optimal balance between the degree of fine-slicing of the value chain and the degree of geographical dispersion of the separate activities (Contractor et al., 2010), so that the global chain would deliver maximum value.

1.2.2. MANAGING GLOBAL OPERATIONS NETWORKS

Managing global operations networks: The networked MNE perspective

The managerial issues of the networked MNE can be discussed from two perspectives: (1) allocation of responsibilities to different management layers of a networked MNE and (2) the role of headquarters (HQ) in managing the MNE.

(1) For example, Bartlett and Ghoshal (1998) suggest a specific allocation of responsibilities to different management layers of a networked MNE. They suggest a three-by-three framework consisting of three types of managerial responsibilities (entrepreneurship, integration, and renewal), and three levels of management (top-level, middle-level, and front-line). According to this framework, the entrepreneurial responsibility is given to the front-line managers, who are supposed to create and pursue opportunities. Middle-level managers provide their support, while top management motivates and extends the initiatives. The primary responsibility of the middle management is to integrate and link skills, knowledge, and resources. Front-line managers are the ones adopting and utilising these assets, while top-level managers provide their normative support. And finally, the renewal processes are driven by the top management by formulating and communicating their purpose, ambitions, and challenges. The middle-level management is supposed to balance such processes, while the front-line management, to implement them. Moreover, a special organisational culture is argued to be the most important coordinating and integrating tool. Such culture is driven by shared understanding and support for the company's mission and objectives, as well as by collaborative and trustful attitudes.

Despite the existence of such conceptual recommendations, their empirical implementation, as well as the actual existence of such dramatically new organisation, has been questioned. It has been suggested that most of the organisations by far only partially correspond to the conceptual descriptions (Pihl, 2008; Rugman and Verbeke, 2004), while existing studies address a certain ephemeral ideal state. Therefore, there is a gap between academic notions of globalisation and reality (Vahlne et al., 2011) that remains to be addressed. Moreover, as Pihl and Paulsson (2014) emphasise, since the late 1990s the research on networked MNEs has almost vanished, instead focusing on parallel streams, such as development of subsidiaries and their roles, capabilities, and relationships (Colakoglu et al., 2014; Mediavilla et al., 2012; Schmid and Schurig, 2003). The possible reasons include the difficulty to operationalise concepts within the new model, as they include rather elusive dimensions of informal personal networks and cultural control, which are difficult to measure. However, management-related questions are steadily on the agenda of all organisations operating on a global basis, and calls have been made for the renewal of the empirical research on the organisation and management of networked MNEs (Ciabuschi et al., 2012; Pihl and Paulsson, 2014).

(2) With respect to the second topic – the role of the HQ in managing networked MNEs – it has been largely underestimated by the extant research. It is believed that hierarchical management should largely be absent in the networked MNE. The HQ is treated as just 'one of the many' in the organisational network. Embeddedness of all of the actors in the network and the HQ's dependence on the subsidiaries for the resources and capabilities reduce the possibilities of the HQ for influence and fiat. Moreover, related research treats the networked MNE as a distributed knowledge system, where knowledge is socially embedded and action-specific (Forsgren et al., 2005; Tsoukas, 1996). Such MNE properties question the ability of a single actor, like the HQ, to possess all of the necessary knowledge, resources, and power to perform effective management and bring value to the network (Barner-Rasmussen et al., 2010; Goold and Campbell, 2002; Vahlne et al., 2012). The challenges of network complexity may cause errors in the decision-making, leading to interventions into the subsidiaries' activities in ways that demotivate subsidiary employees and managers (Foss et al., 2012). Such problems with motivation and attitudes may harm subsidiaries' productivity, cooperation, and learning. Researchers supporting such a perspective see little need for the very existence of the corporate HQ. Its managerial functions are supposed to be substituted by sophisticated subsidiary charters, networked structures, and enhanced socialisation and informal interaction.

In practice, most of the MNEs maintain the HQ. Some authors argue that by focusing on and, thus, searching for the 'lead' and high value-adding subsidiaries, the extant research might have painted an overoptimistic picture, overstating the exceptions and ignoring more common practices (Ambos and Mahnke, 2010). Therefore, it has been argued that the role of the HQ has higher importance today than ever before. Highly complex organisations face a higher risk of under-achievement without a sound and active managerial direction (Ambos and Mahnke, 2010; Ciabuschi et al., 2012). Moreover, such managerial direction appears to be an increasingly complex function in the conditions of high resource dispersion, high competence and autonomy of the subsidiaries, and an important role played by internal and external networks. This emphasises the importance of the HQs in, for example, ensuring economies of scale and scope, facilitating and optimising knowledge sharing, and global implementation of innovations to sustain competitive advantage. The HQ is the one performing strategic planning, providing various support functions to the subsidiaries, as well as potentially serving as both the source of valuable knowledge and the facilitator of its transfer across the network (Gupta and Govindarajan, 1991; Nell and Ambos, 2013). It is the one defining the subsidiaries' decision rights, establishing the information infrastructure, and coordinating subsidiaries' activities, in case any lateral conflicts arise. Therefore, the HQ has a minimum of two important functions: administrative and entrepreneurial, which are highly important in a network MNE (Forsgren and Holm, 2010). However, generally, little attention has been paid in the extant research to the role of the HQ and to its ability to bring value to a network MNE. Therefore, given the increased complexity and dynamism of the network MNEs, the understanding of all the related managerial tasks and challenges, and how the HQ can cope with them, requires further investigation (Ciabuschi et al., 2012).

Managing global operations networks: The IMN perspective

The International Manufacturing Networks research stream emphasises a need to combine network configuration and coordination decisions as a prerequisite of successful network management, because they are tightly related (Cheng et al., 2015). Network configuration may be represented as a collection of several dimensions, related to structure of the network (physical configuration of resources) and to its infrastructure (activities and processes) (Srai and Gregory, 2008). In light of this, for example, Rudberg and Olhager (2003) and Nassimbeni (1998) offer typologies of network configurations and describe different coordination approaches required by each type. The network configuration perspective also emphasises the importance of the time dimension. Temporality and the dynamics of network

configurations (due to changing boundaries, relationships, and roles of network members) result in the need for the adjustment of managerial approaches and mechanisms. However, this issue, as well as the general topic of the management of manufacturing networks, is still in the development stage, calling for additional investigation (Mugurusi and de Boer, 2013; Prasad and Babbar, 2000).

Managing global operations networks: The GVC perspective

Within the GVC research, it has been argued that the relocation of activities abroad requires the offshoring firm to develop a whole new range of capabilities, whether to manage their dispersed operations, or to substitute for the lack of certain activities in-house. For example, Schmeisser (2013) emphasises that, after the firm has taken and implemented the disaggregation-relocation decisions of offshoring, it needs to actively pursue the coordination and controlling of its global operations. This assumes the importance of the firm's capacity to build or internalise resources and capabilities at the offshore locations, and to preserve and protect its own critical resources. The ability to '*optimally leverage the flexibility, arbitrage, and global learning gains from having a global network of value activities in place*' is also important (Schmeisser, 2013, p.403). Murray et al. (2009) emphasise that, after choosing and implementing a particular offshoring setup, the firm's dynamic capabilities (e.g., absorptive capacity and integration capability) are what actually determine future performance of the whole system. Contractor et al. (2010) and Mauri and Neiva de Figueiredo (2012) suggest that there may exists an optimal ratio between the degree of fine-slicing and geographical dispersion of the separate activities. Such optimum depends on the ability of the firm (in terms of its structure and capabilities) to support such dispersion and continuously improve any arising inefficiencies. Medcof (2001) emphasises that the relocation of activities abroad introduces disturbances into the established organisational and social systems of the firm, which need to be managed to ensure the intended offshoring performance. Moreover, it is crucial for the firm to take into account the nature of task interdependencies among the on-shore and offshore operations and to choose appropriate coping strategies and tools (Kumar et al., 2009; Slepniov and Sørensen, 2007; Srikanth and Puranam, 2011). The importance of continuous management of offshoring relationships between the offshoring organisation and the offshore supplier or facility has also been emphasised (Choi and Hong, 2002; Cox, 1996; Hätönen and Eriksson, 2009; Paulraj et al., 2008). Such relationships are discussed in terms of the choice of contract type and decisions to renew it, as well as social relationships involved. In the light of this, the development of relational capabilities is argued to be the key to success. Slepniov et al. (2010) describe a situation where, having transferred all of the operations abroad, a company has invested all of its efforts into the development of systems integration and supplier relationships

management capabilities. In a similar way, Mol (2005) describes how firms increasingly rely on their capabilities to create and support partnering relations with offshore suppliers that can act as a substitute to the internal generation of knowledge and innovation. Such capabilities allow them to compensate for the disintegration of technological functions from the company's internal operations.

As argued by the above discussion, the relocation of activities abroad requires new capabilities from the offshoring firm. However, the research on such specific capabilities is still in its infancy (Schmeisser and Bjoern, 2013). Moreover, in the GVC literature, much importance is attributed to the 'lead' firm, which is often the nexus of the global network's coordinating and managerial efforts (Gereffi et al., 2005). However, unexpectedly little consideration has been directed towards the actual properties of the lead firm and how it manages to develop and sustain its managerial capabilities, and overcome the related challenges. Similar to the IB research, where most of the attention has been concentrated on the subsidiaries, the GVC approach has been focused on the suppliers, their capabilities and learning, and the characteristics and conditions of transactions among them. This research emphasises a crucial role of the lead firms. However, it fails to explicitly consider the variations in their structural characteristics, strategies, and capabilities, as if the lead firms were incapable of change and learning, or were not face challenges (Gui, 2010). Such lack of attention towards the changes and learning processes occurring in the lead firms is particularly important in conditions of highly complex international operations. In such environments, even the most experienced companies face new challenges (Demirbag, 2012; Jensen, 2009; Manning et al., 2013; Vlaar et al., 2008) and need to develop new kinds of capabilities to manage their global operations.

1.3. CHALLENGES OF OFFSHORING AND GLOBALLY DISPERSED OPERATIONS: A NEED FOR NEW CAPABILITIES AND THE IMPACT ON THE EXISTING ONES

As it was illustrated in the previous sections, management of global operations networks is emphasised as an important topic in the extant research. Moreover, such management is deemed challenging, as the need for the new managerial approaches and capabilities often becomes apparent only post factum and in the longer term (Larsen et al., 2013; Aron and Singh, 2005). It has been argued that many companies have a predominantly incremental approach to the offshoring decisions, often

underestimating and overlooking the complexities of managing and further integrating the offshored activities (Dekkers, 2011; Ferdows, 2008; Srikanth and Puranam, 2011). Such incremental decisions, each justified in isolation, can eventually lead to the accumulation of the operations complexity beyond the coordination capabilities of the firm, and convert offshoring from a competitive opportunity into a liability. Therefore, the need for the strategic approach to offshoring and the importance of developing the capabilities for coping with associated complexities has been emphasised.

At the same time, the extant research has noted that having globally dispersed operations not only requires new kinds of skills and capabilities, but can also impact the existing capability base of the firm (Cerruti, 2008). For example, previous research in several Danish industries (GONE Project, Aalborg University) found support for a tendency of initial operations capability upgrading at the home base of the offshoring company. At some point, this was followed by a shift in capability level and, finally, by a gradual decrease in operations capability level with the increase of offshoring quota. Other observations from the same source warn that in 2009, offshoring of 100 jobs abroad was generating around 60 higher skilled jobs at the home-base firms in Denmark, aimed at supporting and managing the global network. By 2013, this number shrank to only 10 jobs. The longer-term challenges of offshore outsourcing in particular include the loss of the ability to perform the offshored function at the home base; loss of the ability to repair and effectively evaluate supplier's performance, quality, and inventory levels; and the loss of market visibility (Barthelemy 2003; Mason, 2002). The research acknowledges a danger of erosion of internal capabilities as a result of excessive offshoring, leading to the 'hollowing out' of the firm (Kotabe, 1989; Lee and Jung, 2015; Murray et al., 2014; Trefler, 2006). Such a situation is risky, because, due to the dynamism of today's markets, decisions that brought competitive advantage today may have to be reversed in the future. Therefore, capabilities that were given up or received less attention due to the offshoring may suddenly gain significance. In such a case, a company may be not able to restore a capability it once had. Lei and Hitt (1995) warn that the internalisation of certain skills by the supplier can leave the offshoring firm dependent on them. And finally, the extant research is concerned with trends of backshoring, observed in many industries (Gray et al., 2013).

The reasons for such capability-related challenges are manifold. The excessive dependence on offshore partners may have a detrimental influence on the firm's capabilities and knowledge base: without practicing a capability, the firms simply forget how to do it. Therefore, the level of capability is related to the consistency and frequency of its usage (Rao and Argote, 2006; Helfat and Peteraf, 2003).

The dynamism of technology specific to certain industries can also endanger capabilities subjected to offshoring. As argued by Cohen and Levinthal (1990), the lack of investments in capability at early technological stages increases the costs of its development to a desired level at later stages. As a result, the probability of the company to invest in a given capability at later stages decreases significantly, despite the recognition of potential benefits offered by possession of such a capability. This may lead to a company becoming 'locked-out' of any further related technological advancements.

Researchers also discuss the negative impacts of the complexities of geographical dispersion, including both physical and cultural distances, on the ability of the offshoring firm to re-integrate offshored activities with the ones left at the home base (Anderson et al., 2007; Slepniov and Sørensen, 2007; Srikanth and Puranam, 2011). This may lead to various technological and competence-related problems (Becker and Zirpoli, 2003). Moreover, the offshoring decisions are often based on the assumption of separability and the independence of different tasks. However, in reality, many tasks are interconnected, making the related capability dependent upon the concurrent integration of these tasks. By separating them, a company may impair its own ability to sustain and develop capabilities due to the reduction in the internal interaction and learning across competencies (Bengtsson and Dabhilkar, 2009; Berggren and Bengtsson, 2004).

And finally, some authors connect capability-related challenges to the growing autonomy of the offshore partners or subsidiaries that makes it difficult for the offshoring firm to control and coordinate them. Offshoring often demands more managerial attention and frequently constrains managerial resources (Barthélemy, 2003; Kotabe et al., 2012).

Despite the existence of such considerations and concerns, little is still known about what impact offshoring has on the firms in the longer term and how they can cope with it (Bengtsson and Dabhilkar, 2009; Dekkers, 2011; Doh, 2005).

1.4. PURPOSE OF THE PRESENT STUDY

Based on the discussions presented in this chapter, it can be said that management of the globally dispersed operations and firm-specific capabilities required for such management are emphasised to be both important and understudied topics in the extant literature. Moreover, the central managing entities in the networks (such as the lead firms in GVC research or the HQs in IB research streams), who are often

the carriers of such managerial functions and capabilities, have been attracting renewed scholarly interest in recent time. The IMN stream is less concerned with central network entities and their managerial capabilities, but more with systemic issues of network management. Nevertheless, this stream still calls for the research on how the changes in the network members and in the network as a whole affect separate network members and their capabilities. The research interests of all of these research streams are also supported and motivated by the ongoing offshoring challenges that companies face. These challenges concern the achievement of desired and consistent performance levels through the adequate management of offshore operations. Such management implies the development of the necessary capabilities and securing against the unfavourable impacts of offshoring on the existing capability base. Such tendencies indicate a shift in the scholarly interest from the 'why, what, where, and how' questions of configuring operations on the global scale. Instead, more attention is required to the issues of ***how an organisation with a global setup can continuously maintain its capabilities and develop new ones to manage its globally dispersed operations network.*** We take this query as the overarching purpose to be addressed by this study.

CHAPTER 2. FRAMING OF THE RESEARCH QUESTIONS

This chapter is aimed at providing a more comprehensive background to the study, in order to address the purpose of the research articulated in Chapter 1. It summarises how the existing literature informs the domain and allows the definition of the main approaches, focus, and concepts of this work. This chapter also indicates gaps in the extant literature that allow the formulation of the research questions.

First, **Section 2.1** discusses the importance and theoretical foundations of the network management capabilities being the mediating link between the network structure and performance. Acknowledging such importance and taking it as a core assumption of this work, we further focus on what network management capabilities are and how they are connected to the network.

The following sections focus on deriving a definition of the network management capabilities, which will guide the further research. First, **Section 2.2** provides a discussion of three main approaches to network management found in the literature, including the views on the possibility of a single firm to manage its globally dispersed network. One of them is chosen to be the basis for this work.

Section 2.3 connects the notions of the network management and organisational capabilities by, first of all, clarifying the understanding of organisational capabilities in general. Such understanding of capabilities, combined with the approach to network management by the focal firm previously described in **Section 2.2**, allows the outlining of a definition of the network management capabilities adopted in this work.

Having defined the main approaches and concepts of this work, we proceed with the identification of research gaps present in the extant literature, and formulate the research questions in **Section 2.4**. First, **Sub-section 2.4.1** provides an overview of research on the network management capabilities in different types of networks. It is further argued that little to nothing is known about how and when organisations develop such capabilities, as if they were born as networks and already possess the required network management capabilities. Moreover, drawing on the previous discussion of the connectedness of particular managerial capabilities to particular network configurations, we outline that unexpectedly limited consideration has been given to the question of how the changes in such configurations affect the existing managerial capabilities. Based on such gaps, we suggest that there is a need to study

the changes in the network management capabilities of the focal firm within the context of its network evolution. **Sub-section 2.4.2** further narrows down the focus of this work by explaining its focus on the global intra-organisational network (out of the variety of different network types), and on the home base (HB) as the focal firm, managing the network. The main research question is articulated in **Sub-section 2.4.3**. In order to address this question, three sub-questions are also formulated. **Sub-section 2.4.4** provides a more focused overview of each individual sub-question, outlining the gaps in the extant literature that are addressed by these sub-questions.

Finally, **Section 2.5** introduces some delineations of the research.

2.1. THE IMPORTANCE OF NETWORK MANAGEMENT CAPABILITIES

The previous section articulated the main query and focus of this study: How can an organisation with a global setup continuously maintain its capabilities and develop new ones to manage its globally dispersed operations network? To approach this query, it is important to, first of all, outline the understanding of the concept of *network* that is used in this work, as well as why network management capabilities are important.

We adopt the broad definition of a *network* as a set of companies connected to each other with a goal of doing business (Halinen and Törnroos, 2005). A great deal of research has been focused on the issues of various network properties (network structures, relationships, positions, levels of integration, external control, system stability, levels of centralisation in the network, and so on) and their effects on the performance of the network as a whole (e.g., Harrington et al., 2012; Provan and Kenis, 2008; Provan and Milward, 1995) or on the performance of individual network members (Fang et al., 2014; Gammelgaard et al., 2012; Human and Provan, 1997). Such studies were made in different network contexts, for example, networks in public services, strategic inter-organisational networks, innovation networks and intra-organisational networks. The performance of the network as a whole can be described as the degree to which and efficiency with which the network attains its goals. However, as the firms in the networks are autonomous, they can extract their own performance benefits from the network (financial, learning, access to resources, and so on) not directly related to the network performance as a whole.

Several studies have acknowledged the importance of network management abilities of the focal firm as a precondition for the network to achieve desired performance effects (Ciabuschi et al., 2012; Fang et al., 2014; Ritter and Gemünden, 2003). Thus, network management is seen as a certain mediating link between the network properties and outcomes – both in terms of the network-level and individual firm-level performance. As defined by Dhanaraj and Parkhe (2006, p. 659), network management is '*the set of deliberate, purposeful actions undertaken by the hub firm as it seeks to create value (expand the pie) and extract value (gain a larger slice of the pie) from the network*'.

From the theoretical point of view, such connection between network properties, network management by the focal firm, and the network-level performance can be explained based on the Knowledge-based View (KBV) of the firm (Grant, 1996) and conceptualisation of networks as loosely coupled systems (Orton and Weick, 1990). KBV explains the existence of the firm with the fact that its boundaries enable the development and deployment of firm-specific capabilities in ways and degrees that are impossible on the market terms. The firm is then seen as a distributed knowledge system. Within the firm's boundaries, efficiency of knowledge sharing, as well as of production and coordination, is much higher due to the shared organisational language and routines. Interdependence among the organisational units promotes social control, which makes the threat of opportunism largely irrelevant. Together with this, as argued by Provan (1983; cited in Dhanaraj and Parkhe, 2006, p. 659): *"networks may be viewed as "loosely coupled coalitions", where loose coupling is "a situation in which elements are responsive, but retain evidence of separateness and identity""*. Therefore, the conditions of the networks are different from the intra-firm conditions in that in the absence of hierarchical controls, the elements of the system (network members) display certain autonomy and indefiniteness. Therefore, it may be argued that the importance of the network management by the focal firm for the performance of the network as a whole lies in facilitating such shared language and routines, information exchange, and relationships to enable the development and deployment of the network-specific capabilities to achieve a desired result. In other words, network management is about bringing together the distributed resources and capabilities, possessed by the network members.

In its turn, the relationship among network properties, network management by the focal firm, and the individual-firm level performance may be explained using the Resource Based View (RBV) and the extended resource-based theory (ERBT) of the firm. RBV has long been the main theory emphasising the role of the firms' capabilities in creating and sustaining its competitive advantage (Barney, 1991). According to RBV, firms can derive competitive advantage from applying the bundles of their valuable resources. However, with the growth of offshoring, such

resources are increasingly shifting from a firm's possession to a network setting. Thus, the resource base, important for the competitive advantage of the focal firm, can increasingly be found outside its own boundaries and location (McIvor, 2005), while the network itself can be approached as a set of resources. However, such resources cannot provide benefits by simply existing in the network. A focal firm's capability in using these resources is essential intended for extracting their potential value (Gomes and Dahab, 2010; Madhok, 2002). Therefore, the capability of the focal firm to initiate, utilise, and manage networks is critically important. For example, Fang et al. (2014) argue that the ability of the focal firm to improve or bridge deficiencies of its network structure is important for it to access benefits offered by the network resources. This is consistent with ERBT, discussing the collaborative advantage, which a firm may gain from its ability to extract value from cooperation with other organisations or from accessing the resources and capabilities of other organisations (Arya and Lin, 2007; Lavie, 2006; Spring and Araujo, 2014).

The described considerations explain and emphasise the importance of sound network management for the performance of the network as a whole and its individual members. Such considerations also provide a more solid ground for the interest towards network management displayed in this study. Moreover, the earlier argumentation allows us to choose a particular focus of this work. This focus is on the network management capabilities as described by the RBV, rather than any other approaches to network management, potentially ranging from general management strategies (Ruokonen et al., 2006) and internal conditions of the managing organisation (Agranoff and McGuire, 1999) to properties of individual managers (Kedia and Mukherji, 1999). We also consider the network management capabilities to be important and aimed at improving both network-level performance and performance of the individual focal (hub) firm (similarly to the earlier cited approach of Dhanaraj and Parkhe (2006)). Such understanding is based on the following: because members in networks are interdependent, negative performance of separate performance members tends to impact performance of their counterparts. Therefore, the attempts of particular network members to extract value from the network at the expense of performance of other network members become quickly apparent. Such members are at risk of being excluded from the network (Provan, 1993), and this works even for the networks in which large buyers have smaller suppliers dependent on them. For example, Choi and Hong (2002) describe a case where such a supplier chose to leave the network due to the overwhelming unfairness and being taken advantage of. Therefore, the abilities of the focal firm to both enhance the individual network member's performance and enhance the performance of the network as a whole (accordingly, to extract value from the network and create value in the network – in the understanding of Dhanaraj and

Parkhe (2006)) can be seen as important and inseparable properties of network management capability of the focal firm.

It should be noted, however, that the verification of the network management capability relationships with performance is outside of the scope of this study. Departing from the initial motivation of this work, our core interest lies within the area of relationships between the network properties and network management capability of the focal firm. Therefore, we accept an assumption that network management capabilities are important for the network outcomes, while the particular details and conditions of this relationship are left for future research.

2.2. APPROACHES TO NETWORK MANAGEMENT

Recognising the importance of network management as such, researchers seem to disagree about its definition and content. Moreover, in relation to the focus of this study on the managerial capabilities of a single actor in the network, the very possibilities of network management by a single firm receive various assessments in the extant research. In this section, we will review the theoretical underpinnings of such views, as well as argue for our particular choices.

2.2.1. OPTIMISTIC VIEW ON THE ABILITY OF THE FOCAL FIRM TO MANAGE THE NETWORK

The first approach can be called the optimistic one, where the focal firm is perceived as an active managing party. Such view is based on, first of all, Transaction Cost Economics (TCE) (Williamson, 1971). According to this theory, the focal firm structures its network through taking boundary decisions based on the economic reasoning. According to such a reasoning, the focal firm performs its managerial function by choosing the most efficient types of relationships (contracts) with potential suppliers. Consequently, network change and development occur through continuous proactive redefinition of the firm's boundaries, depending on which type it considers to be the most effective in response to consumer preferences. This perspective has an external focus, where the focal firm is able to identify the position that it wants to assume in the network. Subsequently, it is able to take efforts to influence its relationships with other firms/network members to improve its performance and competitive advantage (Cox, 1996). Such a view also largely

ignores the ability of the other party (supplier or subsidiary) to influence decisions of the focal firm and the direction of the network development.

A milder version of the same perspective is offered by the Relationship Marketing research school (Cannon et al., 2000). It generally supports the views of TCE, but acknowledges that interactions between the network members resemble relationships more than just discrete transactions. Such relationships are dynamic and are developed in an interactive process, where human interaction is particularly important. This view still largely supports the rationalistic perspective of TCE, where boundary decisions are taken to safeguard the transactions. However, the Relationship Marketing approach takes into account both economic and human factors (like trust and relational norms) (Zaheer and Venkatraman, 1995). It acknowledges that network management assumes not only establishing effective contractual relationships by the focal firm, but that it also involves a need to take into account, for example, the perceptions of the supplier regarding the fairness of the relationship (Choi and Hong, 2002), or the effectiveness of inter-organisational communication (Paulraj et al., 2008). Otherwise, the loss of a valuable partner may occur or performance expectations may not be met.

Forsgren and Holm (2010) also refer to the knowledge-based view and dynamic capability view (Teece et al., 1997) as theories supporting the possibility of the network to be managed by a single actor in the network (in particular, the HQ). These authors approach the network as a distributed knowledge system, rather than a network of buyer-supplier relationships. In such a network, knowledge is not limited to being a static resource. It is rather approached as something continuously created and transformed within the complicated network processes (Verbeke, 2003). It is being argued that, although the HQ may be limited in its ability to assess and control all the knowledge created in the network, it nevertheless is able to grasp which of such knowledge it lacks. Based on such understanding, the HQ is seen as being able to design appropriate tools, structures, and coordination approaches to ensure the desired functioning of the network. Such ability is based on the belief that the HQ's knowledge of the network, although imperfect, is still more advanced than that of any other single network member (Conner and Prahald, 1996). Moreover, the HQ is believed to possess authority, which is an important mechanism for handling problems caused by differences in network members' knowledge.

2.2.2. PESSIMISTIC VIEW ON THE ABILITY OF THE FOCAL FIRM TO MANAGE THE NETWORK

A polar view on the ability of the focal firm to manage its network can be called the pessimistic perspective. It stems from a row of network-based theories that understand networks as social structures consisting of actors, which can be individuals or organisations (Gammelgaard et al., 2012). Such theories investigate, for example, contacts of individuals and organisations, their power relationships and conflicts, and the impact of the relationships' properties (such as strength) and network position on the network members' performance.

One of the popular theories, concerning the inter-organisational relationships in particular, is the Industrial Network theory. It emphasises high interdependence of all network members, where a single party has very limited opportunities for influencing the network as a whole. It can only identify the scope of its own action within the reality of existing and potential dyadic relationships, in order to operate effectively with others (Gadde et al., 2003). While the positive perspective argues that the focal firm can influence its relationships with other network members, the Industrial Network perspective posits that the focal firm can only influence its own position in the network. Therefore, according to this view, the focal firm is seen as not managing the network, but rather adapting to its separate members by adjusting its own attitudes, strategies, knowledge, and knowledge transfer modes. There are several explanations of such inability of the focal firm to manage the network as a whole. The first one stems from three network paradoxes (Hakansson and Ford, 2002). The first paradox is that, on one hand, the relationships of the focal firm with other network members allow it to access needed resources and perform certain activities. But on the other hand, they tie the focal firm to its partners and current ways of operating, thus restricting flexibility. The second paradox is related to the fact that the network relationships, on one hand, allow the company to influence its partners. But on the other hand, it can itself be influenced through the very same relationships. And the third paradox is that companies normally strive to achieve as much influence and control over their network relationships as possible, to promote the achievement of their own goals. However, the more successful the focal firm is in its controlling efforts, the more this constrains the opportunities for innovation, potentially coming from the network. Therefore, the managerial possibilities of the focal firm are limited in the sense that it is both the creator and the product of the network relationships, and, moreover, its managerial efforts may be harmful. The focal firm is constantly balancing on the interface with other network members, rather than precisely defining this interface. Also, the development of the networks is seen as not being driven by the focal firm (as it is within the optimistic

perspective), but by the interaction among the network members and the resultant recombination of activities. The tighter the relationships in the network are, the more dynamism may be expected in the network (Gadde et al., 2003).

Another explanation of the inability of the focal firm to manage its network as a whole can be attributed to the properties of the knowledge embedded in the network (Forsgren and Holm, 2010). The network here is not only viewed as a dispersed knowledge system, but also the knowledge within it is believed to be highly context-specific, action-oriented, and collective (Weick and Roberts, 1993). The context specificity implies that knowledge is embedded in the local context in which the knowledge-related activities are performed, and therefore can hardly be separated from such context. Action orientation of knowledge means that it is not only the resource used in the activities, but is also their product. This means that such knowledge can be grasped only through direct participation in such knowledge-creating activities. Knowledge collectivism implies that the knowledge is shared by many participants. Therefore no single network member can possess the full knowledge (Tsoukas, 1996). In such conditions, a single network member can only grasp such knowledge through the direct involvement in the knowledge-creating or -using activities within their immediate context. Therefore, a single network member cannot manage the network, as it not only does not possess all the knowledge, but also often does not know which knowledge is required. Therefore, network organisations here are approached as distributed knowledge systems, which lack an overseeing 'mind'.

2.2.3. CONTINGENCY VIEW ON THE ABILITY OF THE FOCAL FIRM TO MANAGE THE NETWORK

There are also research streams that support a view in between the two earlier described polar perspectives on the possibility of network management by a single firm. They depart from the possibility of different interpretations of the term management and argue that opportunities for the focal firm to manage its network will vary, depending on certain conditions (Ellegaard et al., 2003). This approach perceives the network as being comprised of the highly interdependent actors with complex resource and activity connections. A single actor is believed to be able to manage the network through orchestrating the linking of activities, tying of resources, and bonding of actors in a dyadic relationship or in part of the network. This approach treats all network members as active parties in the relationship, but at the same time, admits the possibility of certain network members (e.g. customer

firms in the supply chain) to exercise higher network management ability. Such ability may depend on, for example, the nature of the product (levels of innovation, uniqueness, and complexity), because the specific nature of the product may require different approaches to managing operations around it (Ellegaard et al., 2003). For example, relationships around proprietary products may need to be managed in a more defensive and controlled way to prevent replication.

In a similar vein, Järvensivu and Möller (2009) state that there is no need to argue that networks cannot be managed. Empirical evidence clearly shows that they can be and are being managed. The main peculiarity here is that, as the nature of management is highly context-dependent, different managerial tasks will be required in different organisational contexts. Through their conceptual framework, Järvensivu and Möller (2009) argue that the particular nature of management (or, as they call it, managerial roles) depends on the type of network in question. Specific actors can assume certain roles if they possess the appropriate resources and capabilities. As it is nicely illustrated by Harland et al. (2001), in certain network conditions, these roles will be related to 'managing the network' in the way suggested earlier by the optimistic perspective, while in the others – to 'coping in the network', which is closer to the descriptions of the pessimistic perspective on network management by a single firm. Therefore, the network management role of the focal firm will depend on the type of its network and its own properties.

2.2.4. CHOOSING THE APPROACH TO NETWORK MANAGEMENT FOR THE PRESENT WORK

Comparing the earlier described views on the possibility of a single firm to manage its network, we choose to follow the lead of the third one – the contingency view. This perspective is the one taking into account the realities of the global networks in terms of complexity, dynamism, and the importance of social relationships. But at the same time, it admits an opportunity to identify the most important contingencies, which would allow introducing a certain order, predictability, and manageability into the system.

2.3. DEFINING NETWORK MANAGEMENT CAPABILITIES

Discussion of the approaches to the network management in the previous section was important to enable the derivation of a definition of network management capabilities, which will guide the further research. For this purpose, Section 2.3.1 will first clarify our understanding of organisational capabilities in general, while Section 2.3.2 will focus on defining network management capabilities in particular.

2.3.1. ORGANISATIONAL CAPABILITIES

Providing a definition of the capability as such is a rather difficult task, as different authors approach this concept in a variety of ways, often lacking consensus. Some approach a capability as a process or routine leading to a certain goal (Helfat and Peteraf, 2003; Weigelt, 2009; Wu et al., 2010). For example, Weigelt (2009) defines capabilities as processes aimed at the usage of resources to improve performance of the organisation. Such processes are valuable, inimitable, and path-dependent.

Other researchers approach a capability as a capacity of the firm for performing a certain activity. As Ray et al. (2004, p. 35) express it: '*Activities, routines, and business processes are the mechanisms through which resources and capabilities get exposed to market processes where their ultimate value and ability to generate competitive advantages are realized*.' According to Collis (1994) and Protogerou et al. (2012), capability is a one of a kind resource combination, which enables the company to perform certain activities (such as production, marketing, and so on) that are aimed at creating value for customers.

Still others understand capability as a measure of effectiveness, quality, or level of a certain function. Thus, for example, Kotabe et al. (2008) define a capability in terms of skilfulness of the personnel in performing certain tasks. In a similar vein, Rosenzweig and Roth (2004) talk about operational capabilities of quality, speed, flexibility, and delivery reliability. Also, Mahmood et al. (2010) and Dutta et al. (2005) define capabilities as the efficiency with which a firm employs a certain set of resources.

Other existing approaches exclude strict distinctions. For example, Peng et al. (2008) describe capabilities both as high-level routines and the '*strength or proficiency of a bundle of interrelated routines for performing specific tasks*' (Peng et al., 2008, p. 734). Amit and Schoemaker (1993, p.35) define capability as a '*firm's*

capacity to deploy resources, usually in combination, using organisational processes, to affect a desired end'. They also state that capabilities are '*information-based, tangible or intangible processes that are firm-specific and are developed over time through complex interactions among the firm's resources*' (Amit and Schoemaker, 1993, p.35).

In our work, we choose to support an all-encompassing approach to capabilities. This is because, on one hand, understanding capability as a capacity reflects its embeddedness in the underlying resources (knowledge, skills, social relationships, technology, and so on). Due to the tacit nature of capability, it is very difficult to separate its contribution to performance from such contributions of particular resources. These important properties of capability may be overlooked, if treating it solely as a process. On the other hand, including the routine- or process-based understanding of capability allows accounting for its intentionality towards a definite goal, as opposed to being just an asset. This should allow capturing capability in real life and assessing its importance for the organisation. And finally, recognising that capabilities may have different effectiveness or level may allow investigating the role of the organisational context in the development of such capabilities.

Based on such considerations, we approach capability as a combination of the firm-specific processes and skills for deployment of a particular combination of organisational resources, aimed at fulfilling goals within a particular functional area. Moreover, we suggest that capabilities may be described both in terms of their variety (depending on the objectives they pursue), and in terms of their level or effectiveness.

2.3.2. DEFINING NETWORK MANAGEMENT CAPABILITIES

In order to further define and operationalise network management capabilities in particular, we will pick up the discussion started by Järvensivu and Möller (2009). Similarly to them, we depart from the assumption that particular network management activities of the focal firm will depend on the network properties and properties of the focal firm. According to such view, in certain network conditions, network management activities of the focal firm will be closely related to the traditional hierarchical management functions of planning and controlling network operations. In contrast, in the other network conditions, they will include more indirect forms of influence, like brokering, consulting, and similar forms (Knight

and Harland, 2005; Snow et al., 2000). To accommodate such variety of managerial activities, we adopt an approach used by, for example, Knight and Harland (2005) and Heikkinen et al. (2007). These authors use the concept of organisational roles in order to approach and capture network management activities. Although the Roles theory is normally applied to individuals in the studies of social science, researchers have used it in relation to organisations, as well. In particular, Katz and Kahn (1966, cited in Heikkinen et al., 2007) depict organisations as social systems consisting of interdependent and focused activities accomplished by individuals. These activities enable the functioning of organisations. Consequently, organisations in the networks can be perceived as systems of individuals '*performing roles which are constituted from acts with materials, machines, and above all through interactions with each other. As a result, organisations within a network can be perceived not only as profit seeking entities, but as collections of roles that stem from the individuals' behaviors influencing the network*' Katz and Kahn (1966, cited in Heikkinen et al., 2007, p. 911). Based on such considerations, Heikkinen et al. (2007) define network management as the capability to influence the network through managerial role-acting. Therefore, it is also emphasised that individual actors are capable of influencing the network through their actions. Consequently, the managerial roles of the organisations are captured through the actions taken by their employees.

Referring to such views, this work adopts the approach to ***network management*** as a multiplicity of different organisational roles aimed at influencing the network members to achieve a certain goal. Investigating the factors (processes and skills) that enabled accomplishment of these roles should allow the identification of a set of capabilities required for performing such roles, i.e. the ***network management capabilities***.

In the previous section, it was suggested that capabilities may be described not only in terms of their variety, but also in terms of their level or effectiveness. In order to assess the level of a particular network management capability, the earlier mentioned work by Dhanaraj and Parkhe (2006) can be of particular interest. Based on their approach, it has been argued in Section 2.1 that network management capabilities of the focal firm are aimed at both extracting value from the network (enhancing the individual network member's performance) and at creating value in the network (enhancing the performance of the network as a whole). However, for the sake of simplicity in this work, we will explicitly focus on the second part. Therefore, the level of the focal firm's network management capabilities will be defined here as the extent to which they bring value to the network.

2.4. FORMULATING THE RESEARCH QUESTIONS

2.4.1. RESEARCH GAPS AND OPPORTUNITIES

Network management capabilities in different networks

As mentioned in Section 2.2.4, we took it as a given that particular network management roles of the focal firm will depend on the type of its network and its own properties. Within such thinking, many authors discuss network management in the context of different types of inter-organisational networks, including strategic networks and alliances (Kale and Singh, 2009; Möller et al., 2005); networks in public administration (Agranoff, 2007; Jarvensivu and Rajala, 2013; McGuire, 2002; Provan and Kenis, 2008; Wegner and Padula; 2010); supply networks (Gereffi et al., 2005; Heikkinen et al., 2007; Knight and Harland, 2005; Svahn and Westerlund, 2007); innovation networks (Capaldo, 2007; Dhanaraj and Parkhe, 2006; Fang et al., 2014; Ritter et al., 2002); and others.

For example, in the context of supply networks, an empirical investigation by Knight and Harland (2005) outlines a row of possible supply network management roles of the focal firm: innovation facilitator, coordinator, supply policymaker and implementer, advisor, information broker, and supply network structuring agent. A similar approach was taken by Heikkinen et al. (2007), who describe twelve roles for managing the networks. De Marchi at el. (2014) suggest distinguishing between two modes of network management by the lead firm: 'driving' and 'normalizing'. In the 'driving' mode, the emphasis is on the lead firms and their (producer/buyer) power in shaping the division of labour within the value chain at the international level. The 'normalizing' mode is focused on re-aligning the activities in the network to mirror or materialise a standard or norm. Snow et al. (2000) describe three types of network organisations, namely, stable, dynamic, and internal, where stable and dynamic networks refer to supply networks, while internal networks are represented by MNEs having a network structure. The authors also suggest that the same managerial or 'broker' roles are required in all of them: architect, lead operator, and caretaker. Managers performing such roles '*operate across rather than within hierarchies, creating and assembling resources controlled by outside parties*' (Snow et al., 2000, p. 15). The discussion of network management capabilities, rather than only managerial roles, may be represented by the conceptual paper by Svahn and Westerlund (2007). They suggest a classification of the 'modes of network management' and distinguish among the modes of influencing, controlling and monitoring, coordinating, and integrating. They also offer a row of corresponding capabilities required by each of these modes. An empirically-based study by Harland

et al. (2001) offers a more fine-grained classification of the context-specific supply network management roles and their contingencies. They suggest a classification of the focal firm's network management roles, based on the properties of the network (stable or dynamic) and the properties of the focal firm (level of influence in the network).

In the context of strategic networks, Möller et al. (2002, 2005) represent network management as a set of dynamic capabilities. They distinguish among three types of strategic networks and offer a range of capabilities required for their management, ranging from, for example, operational capabilities of production and delivery, to dynamic capabilities such as network visioning, mobilisation, and orchestration. In the context of strategic alliances, the research has been focused on the skills required to manage a single alliance (such as partner selection skills, alliance governance skills, and skills to create trust) and a portfolio of alliances (such as the skills to configure an alliance portfolio, skills to coordinate strategies and operations across alliances in the portfolio, and so on) (Kale and Singh, 2009).

In the context of networks in the public sector, Jarvensivu and Rajala (2013) offer a typology of network management modes (enabling, co-enabling, co-producing, and producing). The authors argue that balancing these management modes can enable a network manager to build a strong and more open network. Provan and Kenis (2008) and Wegner and Padula (2010) distinguish among different modes of network governance. Essentially, they focus on the governance and management of networks, rather than on networks as a type of governance. These authors describe a row of contingencies (different network configurations) that determine the type of network governance that would be the most effective for a given set of network contingencies. These contingencies include trust, size (number of participants in the network), goal consensus, and whether the task requires network-level competencies. Although these authors do not talk about particular roles or capabilities of the lead firm in each network type, they do suggest different levels of its involvement and control over the network, varying with the form of governance. Provan and Kenis (2008) particularly emphasise the importance of network management as the force that resolves tensions inherent in each network type. A similar approach was taken by Gereffi et al. (2005) in the context of supply nets. According to them, the network contingencies that determine the type of network governance are the level of competencies in the supplier base, the complexity of the exchanged information, and its codifiability.

In the context of innovation networks, Ritter et al. (2002) and Ritter and Gemünden (2003) talk about the '*network competence*', which is a '*company-specific ability to handle, use, and exploit interorganisational relationships*' (Ritter and Gemünden,

2003, p. 745). The authors developed a multiple-item scale for measuring such a network competence as the effectiveness with which certain managerial tasks are performed, and the level of network management skills of the employees managing a company's relationships. Relying on the social network theory, Capaldo (2007) represents network management capability as an ability of the focal firm to create and manage the network architecture (the proportion of weak and strong ties). The author argues that such capability allows the focal firm to sustain its innovativeness. The conceptual paper by Dhanaraj and Parkhe (2006) describes the ability of the focal firm to enable knowledge mobility, innovation appropriability, and network stability as capabilities that are important for orchestration of the innovation network. Subsequently, other authors attempted to enrich or modify this classification (Hurmelinna-Laukkanen et al., 2012; Nambisan and Sawhney, 2011; Ritala et al., 2009). Based on the previous studies of the innovation networks, Fang et al. (2014) suggest four generic types of networking capabilities (network visioning, network constructing, network operating, and network centring) and test their relationships to the innovation performance of the focal firm.

Lack of the longitudinal and dynamic perspective on network management capabilities

As can be seen from the previous section, generally, the research on network management capabilities is rather scattered due to the large variety of approaches to and understanding of network management capabilities (Järvensivu and Möller, 2009; Wegner and Padula, 2010). According to Järvensivu and Möller (2009), combining aspects of network management theory and the capabilities-based view can make an important contribution to the understanding of network management. Moreover, the existing studies address network management capabilities largely from a static perspective, listing and describing their types, as if the companies were born with them. However, many companies are not born networks, but rather develop into them over time. In this light, the issue of how they develop capabilities for managing such networked structure has been largely overlooked by the extant research. This is especially remarkable for the discussions of global operations networks in the general context of offsoring and offshore outsourcing studies. Such works emphasise the importance of experience and gradualism of the development of offshoring-related capabilities. Such development takes place as companies gradually undertake more complex offshoring tasks: from offshoring simple production or service tasks to the management of the resultant network of the offshore operations (Aksin and Massini, 2008; Carmel and Agarwal, 2002; Dekkers, 2011; Mugurusi and de Boer, 2013; Stephan and Silvia, 2008; Youngdahl and Ramaswamy, 2008). Therefore, such views also acknowledge the connectedness of the managerial capabilities to the global organisation configuration, where changes

in the latter require the development of new managerial capabilities. However, the existing studies seldom address the processes of development and, especially, erosion of these particular capabilities.

Works providing some related contributions include the research stream on alliance management capabilities, describing the alliance learning mechanisms of articulation, codification, sharing, and internalisation (Kale and Singh, 2007; Sluyts et al., 2011). A series of authors addressed factors determining the level of network management capabilities. These factors include the availability of internal resources, the network orientation of human resource management, the integration of communication structure, the openness of corporate culture, technological systems, managerial systems, the development of cross-cultural values, experience with network activities, and so on (Fang et al., 2014; Ritter and Gemünden, 2003). The existing studies, however, adopt a largely static perspective on such capabilities, their antecedents, and their development mechanisms. Additionally, the work by Tondolo et al. (2011) studies the development of capabilities for managing offshore operations from the dynamic capabilities perspective. Manning et al. (2012) describe the process of development of interface management capabilities in the distributed software development context. Although providing some valuable insights into the nature of such a development process, these works do not connect it to the properties of the network. Additionally, Rahmandad and Repenning (2015) argue that, generally, few studies have paid attention to the processes of capability erosion, except for processes of organisational forgetting, impact of turnover, or insufficient organisational memory systems. The authors offer their view on capability erosion dynamics (in the software development context). However, their study concerns internal organisational capabilities rather than network-based ones. Some social network studies investigate how the properties of network ties allow the firms to acquire additional or new internal capabilities (Mahmood et al., 2011). However, as argued by Fang et al. (2014), such ties are merely a resource themselves, requiring the managerial capability to be activated and utilised. Therefore, the processes of network management capabilities development and erosion have largely been overlooked in the extant research. This leaves practitioners with little guidance, as well as concealing factors potentially impacting the development and variation of such capabilities, in addition to their behaviour in the longer term.

Additionally, the existing works pay little attention to the fact that networks are dynamic entities that can rather be understood through their temporality. The offshoring motives, balance of power, relationships, capabilities, and roles of network members change over time - both in inter- and intra-organisational networks (Ferdows, 1997; Lampel and Bhalla, 2011; Slepniov et al., 2010; Youngdahl et al., 2010). And, as the focal firm is not an island, but part of the

network in which it operates, a network and the changes occurring within it may not only determine the required network management capabilities, but also impact the effectiveness of the existing capabilities. Such a view can be supported by the earlier discussion regarding the connectedness of particular managerial capabilities to particular network configurations (Jarovesku and Moller, 2009; Provan and Kenis, 2008). Therefore, network dynamism is an essential factor for understanding the types of network management capabilities, processes of their development and, potentially, erosion. However, both the time element and the context in which the offshoring firm operates have been largely disregarded in the previous studies of offshoring (Volberda and Lewin, 2003).

The possible implications of changes in network-level contingencies for the managerial capabilities of the lead firm have been, to some extent, addressed in the earlier-cited works by Provan and Kenis (on networks in public sector) and Gereffi et al. (2005, on supply networks). These authors predict changes in the network governance types and also in the power balance in the network, based on the changes in certain network contingencies. Wegner and Padula (2010) offer, to some extent, an empirical test of Provan and Kenis' (2008) conceptual framework in the context of horizontal business networks. Their cases indicted that the governance structures in the networks are dynamic and need to be modified (including the adjustment of managerial practices) to support the network development. In particular, the cases in their research showed that due to the network growth and lack of trust, the governance structure gradually moved from a shared one towards governance through an independent and externally hired organisation. Additionally, Slepniov et al. (2010) demonstrated the similar dynamics for the supply network types described by Gereffie et al. (2005), where the firms in the study were observed to gradually move from captive towards modular network structures.

However, generally, the question of how changes in the network affect separate network members has largely been understudied in the extant research (Cheng et al., 2015; Feldmann et al., 2013). Moreover (as it was also discussed in Chapter 1, Section 1.2.2), few existing studies have focused on the central organisation in the network (lead firm, hub firm, or the HQ) and how network dynamics affects it. The GVC studies have largely focused on the suppliers, as if lead firms were less capable of change and development than their suppliers (Gui, 2010). The IB literature on the intra-organisational networks has been focused on the subsidiary level: their roles, mandates, lateral knowledge flows, and so on (Colakoglu et al., 2014; Mediavilla et al., 2012). Therefore, the role of HQ in a networked organisation has been largely overlooked (Foss et al., 2012), while the changes of this role along the network evolution have not been addressed, to our knowledge.

Based on such considerations, it can be suggested that there is a need to study the development/erosion (or, generally, changes) of network management capabilities of the focal firm within the context of its network evolution. Such an approach will also allow addressing the earlier-stated general motivation of this study, concerning the longer-term effects of offshoring on the managerial capabilities of the focal firm (in terms of both their development and sustainment).

2.4.2. FOCUS ON THE GLOBAL INTRA-ORGANISATIONAL NETWORK AND THE HOME BASE

In order to further proceed with formulating the research questions, it is important to articulate and explain the choices and the focus of this work in terms of the focal firm and the network type that will be investigated.

Focus on the intra-organisational network

In terms of the network type, this work focuses on the internal globally dispersed organisational network. Such choice was conditioned by several considerations. First, as can be seen from Section 2.4.1, the issues related to the network management capabilities have been discussed primarily in the context of inter-organisational networks. Few similar studies can be found in the context of intra-organisational networks. Perhaps this is due to the fact that in such a setting management issues and capabilities are normally discussed from an intra-organisational management view of a hierarchy. However, it has also been recognised that intra-organisational global networks bear features of both hierarchical organisations and inter-firm networks. Possession of full ownership and at least formal authority over the subsidiaries assumes a possibility for the HQ to directly manage them. In these terms, managerial capabilities in such a network type may be outlined in the classic managerial traditions as planning, organising, coordinating, and controlling the operations. On the other hand, spatial and cultural separation, as well as significant autonomy of the sites in terms of capabilities and resources, significantly limits the HQ's managerial fiat. The subsidiaries in an intra-organisational network often control critical resources, which give them significant autonomy and bargaining power in relation to the HQ (Vahlne and Johanson, 2014). Therefore, it makes sense to view the MNE itself as a network of semi-independent units. From this perspective, such organisation resembles an inter-organisational network, which Dhanaraj and Parkhe (2006, p.659) described as '*an interesting situation, in which the hub firm lacks the authority to issue commands and*

autonomous network members are not obliged to obey'. A few studies have addressed the managerial capabilities required for this network type. For example, the earlier-mentioned conceptual work by Snow et al. (2000) describes network management roles of architect, lead operator, and caretaker required in several types of networks, including the intra-organisational one. Also, a conceptual paper by Parkhe et al. (2003) offers a discussion of intra-organisational network orchestration processes of mobilising resources, appropriating value, and ensuring global network stability. However, little further attention has been given to the issue of management of networked MNE and especially the capabilities required for it (Ciabuschi et al., 2012).

Additionally, it has been argued that literature on business networks and MNEs has been largely focused on the external embeddedness of the MNE subsidiaries, ignoring the fact that they are a part of a large intra-organisational network (Ciabuschi et al., 2011; Michailova and Paul, 2014). In such a network, the subsidiary-parent company relationships are particularly important for the subsidiary's development and performance. However, little is known so far regarding the development and evolution of these relationships, and factors that may influence this process (Terpend et al., 2008; Mugurusi and de Boyer, 2013). Therefore, focusing on the intra-organisational network, this investigation may contribute to an understanding of the dynamics of the intra-organisational relationships over time. As Michailova and Paul (2014) argue, lack of the process view on the intra-firm relationships, as well as of the understanding of factors that condition their dynamics, hampers the ability to effectively manage these relationships.

And last, but not least, the challenges of studying inter-organisational networks in terms of accessibility to all of the involved parties are acknowledged (Halinen and Törnroos, 2005). Such accessibility is important for the objectivity and reliability of the data collected from all network participants, rather than from only one of them or a dyad (Yin, 2003). The intra-organisational network provides considerably better opportunities in this regard.

Focus on the home base

This study is focused on the home base (HB) as the focal firm managing the network. The HB is the parent company that combines both high production capabilities and the corporate HQ managerial functions. It is historically the carrier of technological and organisational knowledge, as well as the creator and manager of the global operations network. Such focus on the HB supports the recently revived research interest in the role of the HQ in the networked MNE (or what can

be also called the intra-organisational global network). It has been argued that having a strong HQ in the network is important, as such a highly complex organisation is subjected to a risk of under-achievement without a sound managerial direction (Ambos and Mahnke, 2010; Ciabuschi et al., 2012). Additionally, such views advocate the HQ's ability to contribute not only with organisational skills, but with technological know-how, which is important for the value-creating activities of the network members (Ambos and Mahnke, 2010; Forsgren and Holm, 2010). Within such perspective, the term 'parent company' is often used (Gammelgaard et al., 2012; Giroud and Scott-Kennel, 2009), emphasising the high capability and organisational knowledge content of the HQ, rather than limiting it to corporate functions. Supporting such a perspective, this study focuses on the 'parent company', or the HB.

2.4.3. FORMULATING THE RESEARCH QUESTIONS

Definition of the research focus and the previously advocated need for studying network management capabilities of the focal firm within the context of its intra-organisational network evolution now allow the formulation of the main research question of this work:

"How do the network management capabilities of the home base change in the process of its global intra-organisational network evolution?"

In order to answer this central research question, we also formulate a set of sub-questions:

1. *How does the global intra-organisational network evolve?*
2. *How do the types of the network management capabilities of the home base change as its network evolves?*
3. *How does network evolution impact the effectiveness of the existing managerial capabilities of the home base?*

2.4.4. RESEARCH QUESTIONS AND THE ASSOCIATED LITERATURE

Sections 2.4.1 – 2.4.2 summarised literature and considerations that led to the formulation of the research questions of this work. Section 2.4.4 will provide a more focused consideration of each research sub-question by outlining the gaps in the extant literature that are addressed by these sub-questions. It should be noted that the literature informing the investigation of these sub-questions is covered in the research papers, constituting this thesis (Part 2).

RQ 1. How does the global intra-organisational network evolve?

As it was argued earlier, network management capabilities of a HB are tightly connected with the network in which the HB operates, and, therefore, can hardly be fully understood outside of the context of this network evolution. However, as will be discussed further, the process and mechanisms of the evolution of a global intra-organisational networks or networked MNEs have been largely understudied. Therefore, before investigating how the network management capabilities of the HB change along with its network evolution, the latter needs to be given more attention.

The general dynamics of inter-organisational networks have been addressed by, for example, the Industrial Network perspective, mentioned also in Section 2.2.2. According to the latter, network evolution is driven by the interaction among the network members and the resultant recombination of activities. The tighter the relationships in the network are, the more dynamism may be expected in the network (Gadde et al., 2003). This perspective, however, largely denies the possibility of a single firm to drive such evolution, while in this work, the role of the focal firm is deemed essential. The GVC approach views network evolution as a process of disaggregation of economic activities among multiple firms along the chain that is rooted in suppliers' learning processes (Ponte and Ewert, 2009). The 'upgrading' of suppliers leads to the change in their network position, which also impacts how the focal firm orchestrates its global network. Therefore, the development of suppliers' (network members') capabilities and the relationships between them and the lead firm may be summarised as the drivers of the network evolution. However, being focused on the inter-organisational networks, these approaches offer a limited understanding of the global intra-organisational network evolution.

The IB research on networked MNEs describes the 'omnipotent' networked MNE as a next stage in the MNE evolution, driven by the growing challenges and

opportunities of globalization. Chapter 1 (Section 1.2.1) described the main features of such an organisational model. Therefore, the transition of an established MNE towards the networked state could provide valuable insights about the intra-organisational network evolution. However, there are surprisingly few such transition studies. Some exceptions include, for example, the case studies by Malnight (1995, 1996). The author describes the transformation process of a multi-domestic MNE, although devoting little attention to the question of the transition mechanism between the process stages. Additionally, Elter et al. (2014) describe the globalisation of separate functions (purchasing, in particular), rather than the whole organisation. Also, the work by Vahlne et al. (2011) is of a particular interest. It focuses precisely on explaining the further evolution of an already-internationalised organisation. Here the transformation is seen as an incremental evolutionary process, where the precise vision of the desired final state emerges along the process, rather than being formulated by the management beforehand.

Such lack of process studies can explain the fact that, despite the abundance of conceptual research, the actual existence of such dramatically new organisation is being questioned (Pihl, 2008; Pihl and Paulsson, 2014). Pihl and Paulsson (2014) suggest that the existing studies focus on the descriptions of the ideal state, underestimating the incrementality of the changes shaping it. This prevents them from creating a real picture, rather than a conceptual cumulative portrait. As Vahlne et al. (2011) describe, there is a gap between academic notions of the globalisation process and reality. Lack of the process studies, describing, for example, how a multi-domestic MNE (pursuing the local responsiveness strategy) transforms towards an integrated network type (pursuing the ambitions of simultaneously achieving local responsiveness, global efficiency and worldwide learning), limits the scholarly understanding of factors shaping the development of desired characteristics. This also provides little guidance for practitioners.

Such considerations led us to formulate the first research sub-question. Answering it will allow us to cover the gap concerning the further globalisation of already-internationalised companies, and the process of transition of an established MNE towards an integrated network type.

In order to be able to capture the process of the network evolution in our investigation, we approach the network from the network configuration perspective. Network configuration can be represented as a set of structural (physical configuration of resources) and infrastructural (activities and processes that take place within the structure) dimensions (Srai and Gregory, 2008). Therefore, we define the *network evolution* process as a temporal sequence of activities or events

that create and alter the global network configuration over time (based on the process definition by Van de Ven and Huber (1990)).

RQ 2. How do the types of the network management capabilities of the home base change as its network evolves?

As discussed earlier in Section 2.2.4, we are departing from the assumption that particular network management capabilities of the HB will depend on its network configuration. In line with such thinking, the researchers to date have attempted to describe general capability types required for different general types of networks. However, networks are dynamic and prone to changes, which may determine the particular required network management capabilities. Works by, for example, Gereffi et al. (2005) and Provan and Kenis (2008) describe how the particular changes in the network configuration elements may determine the required network management governance. In a similar way, it can be suggested that particular changes in the network configuration elements may determine the required network management capabilities. However, the issues of the capabilities' connection to the network and, consequently, the issues of when particular types of network management capabilities become needed, have been overlooked in the extant research. Moreover, the particular types of network management capabilities required in the context of global intra-organisational network have been scarsely addressed before (see section 2.4.1 for a more detailed discussion of this issue). Such particular considerations have led to formulation of the research sub-question 2.

RQ 3. How does the effectiveness of network management capabilities of the home base change as the network evolves?

As it was discussed in Section 2.4.1, certain network configurations may require particular network management capabilities. Moreover, changes in the network may require and lead to the development of new capabilities required to manage such a changed network. In light of this it can be suggested that changes in the network may also influence the effectiveness of the existing managerial capabilities that were built upon the previous network configuration.

Such thinking was inspired by considering the properties of network management capabilities as being a sub-type of general organisational capabilities. Any organisational capability generally involves a set of resources and knowledge of

their usage (Möller et al., 2002). Capabilities emerge as a result of complex interactions of a firm's resources, are embedded in organisational processes, and are supported by the social networks. They develop over time through learning-by-doing, are embedded into the fabric of a firm, and can hardly be separated from practice (Amit and Schoemaker, 1993; Dosi et al., 2002; Helfat and Peteraf, 2003; Peng et al., 2008). It should also be noted that learning by doing is not the only mechanism of capability development discussed by the researchers. Factors other than organizational learning by doing can account for such development, including the investments into various resources that underlie a capability (new equipment, processes, training of personnel, and so on) (Helfat and Peteraf, 2003). Sirmon et al. (2007) call this mechanism '*pioneering*', which involves the addition of new resources to the firm's resource portfolio. In contrast, learning by doing is associated with the processes of '*stabilizing*' and '*enriching*'. They are aimed at improving the existing capabilities through introduction of small and gradual changes to keep these capabilities updated, or to extend and enrich them.

Considering the management of globally dispersed networks in light of such general capability properties, it can be suggested that the network management capabilities are based on and developed through the interaction with globally dispersed resources and social actors. However, to date, little is known about the impact of spatially and culturally distant and dynamic working arrangements on the development and performance of the network management capabilities of the focal firm. Based on such a gap in the extant research, the RQ3 was formulated.

2.5. OTHER DELINEATIONS OF THE RESEARCH

In order to reduce the scope of the investigation, this work focuses particularly on the production function. Therefore, both HB managerial capabilities and the network evolution process are studied in relation to the production function of the company. Depending on the perspectives of different actors, the definition of production function and its boundaries within an organisation may differ. As defined by Slack et al. (2006), the scope of production in manufacturing companies may be wider than just the scope of the immediate processes that produce products. It is rather constituted by a number of production-related processes that contribute to production, for example, purchasing, R&D, etc. We adopted such a definition of the production function. However, covering all such related processes is beyond the scope of this work. That is why only the core production function and its immediate links are included in the scope of production function and define the data sources in

this study. Production focus was chosen due to the consideration that globalisation processes seldom occur in the whole organisation, but rather are focused in the functions and processes where such globalisation makes the most sense (Elter et al., 2014; Malnight, 1995).

It should also be noted that, although the interest of our study concerns changes in the HB managerial capabilities, we do not engage in the discussion of dynamic capabilities (Teece et al., 1997) that may have been expected. Capabilities are often discussed within a dichotomy of operational versus dynamic capabilities. Operational (or 'lower order') capabilities enable an organisation to perform functional activities such as logistics, marketing, manufacturing, and so on. 'Higher order' dynamic capabilities deal with change and enable a firm to constantly renew its operational capabilities and, therefore, ensure its sustainable competitive advantage. Within such distinction, network management capabilities could potentially fall under the category of operational capabilities. Therefore, the concept of dynamic capabilities could have been used for the discussion of their changes along with the network evolution. We, however, wish to preserve the focus on particularly the relationships between the network configuration and the network management capabilities. Therefore, we subscribe to the view that every operational capability inherently contains dynamic elements of creation, development, and improvement. Authors supporting such a view argue that capabilities are not born the way they are, but are evolved through time and practice to their current state (Helfat and Peteraf, 2003). Even when operating in a completely stable environment, capability still has to undergo a cycle of development until it is able to perform a function on a required level. Thus, developmental (dynamic) properties are an integral part of an operational capability. Moreover, in dynamic industries, constant change and development is an integral part of companies' operations and survival, which they perform on a day-to-day basis, while not necessarily possessing distinct dynamic capabilities (Winter, 2003; Helfat and Peteraf, 2003).

CHAPTER 3. RESEARCH DESIGN AND METHODS

The research design and methods used in this work have been described in each of the individual papers (see Part 2). The present chapter aims to elaborate on these issues to provide a more comprehensive picture.

3.1. QUANTITATIVE INQUIRY

In terms of methodological approach, the major part of this work, reflected in Papers 1-3 (Part 2), was done using the case study strategy and a corresponding research design; this will be further discussed in detail in Sections 3.2-3.6.

At the same time, Paper 4 was based on the quantitative data from the already existing large-scale survey (GONE research programme, 2011). The purpose of this survey was to study the scope, character, and consequences of offshoring by Scandinavian companies. It was administered in the fall of 2011 by a collaboration of three universities: Aalborg University, Copenhagen Business School, and the University of Southern Denmark. Paper 4 uses the survey data to investigate the general implications of the firm's offshoring setup for its offshoring performance or, more precisely, for the degree to which the offshoring firm is able to realise the intended offshoring benefits. Paper 4 provides the details of the statistical methods used, while the overall information on the general survey, including the underlying theoretical framework, may be found in the Technical Report and Data Documentation on Global Operations Network (GONE) Survey (Center for Industrial Production, Aalborg University). Therefore, the related information will not be included in this chapter.

The results of Paper 4 served as a foundation for the investigation presented in Papers 1-3 by providing the support to the main assumption guiding the investigation: that the sound managerial capabilities of the offshoring firm are important to ensure the success of its globally dispersed operations. This assumption fuelled our interest regarding the role of the HB in the global network, despite the existence of the contrary views in the extant literature. The HB managerial capability was not included as a separate variable in the survey in Paper 4.

Nevertheless, its results indirectly support the proposition that the success of offshoring as a company's cooperation with both internal and external entities depends on such capability. Moreover, the findings of Paper 4 offered some additional contributions in relation to the main research questions of this work (addressed in detail in Chapter 5).

3.2. QUALITATIVE INQUIRY: THE OVERALL STRATEGY

3.2.1. AN EXPLORATORY CASE STUDY

A case study strategy was deemed appropriate for this research for several reasons. Yin (2003) defines a case study as a research strategy, which aims to investigate a contemporary phenomenon in-depth and within its real-life context. It is deemed particularly appropriate when the phenomenon-context boundaries are poorly distinguishable. Therefore, it can be suggested that case study approach is particularly suitable for the investigation of such a complicated concept as network management capability, highly intertwined with a particular network context, which in itself is a complex entity. Usage of other research approaches would be more challenging. Thus, for example, the experiment requires a deliberate separation of the phenomenon from its context (the latter is controlled and precisely defined by the laboratory environment). Surveys require limiting both the phenomenon and context to few variables to enable the conduction, response, and analysability of a survey. Consequently, such approaches would provide a rather limited view on the studied issue. Secondly, according to Yin (2003), the form of the research question (What? How? Why?) provides a direction in terms of the most relevant research method to be used. The research questions in this work are of the 'How?' nature, which makes the case study appropriate for providing the answers. Third, according to Eisenhardt (1989), case studies are especially useful for studying the longitudinal change processes, which is the focus of this work. And finally, case studies are best suited for understanding phenomena of which little is known, because they are less reliant on the previous literature or prior empirical evidence than surveys or experiments.

The case study approach often receives much criticism. The main contra argument concerns the weak basis for scientific generalisation that case studies provide, as they are situation-specific (Yin, 2003). Another stream of the case-study critique concerns the lack of connection to strong theory. In this relation, Yin (2003) strongly recommends using multiple case study designs of careful and purposeful

sampling, which could ensure analytic generalisation. Eisenhardt (1989) also supports this recommendation, but for the sake of reliable theory building from case studies, where each new case serves to verify and strengthen the emerging theory. At the same time, Dubois and Gadde (2002) argue that the situation-specificity of case studies is their main strength, which should not be traded off for the attempts of generalisability (p. 558):

'*When the problem is directed towards analysis of a number of interdependent variables in complex structures, the natural choice would be to go deeper into one case instead of increasing the number of cases. It is difficult to comprehend how a little depth and a little width could contribute to the analysis of any problem*'.

These authors argue that it is being slowly recognised in the research community that most of the research findings are '*unstable over time'*, which calls for more attention to the specific situations (Dubois and Gadde, 2002, p. 554). Therefore, what was previously emphasised as a problem can rather be seen as an opportunity. Learning from a particular case in its individual context may offer more benefits than weaknesses and should be deemed a strength. In-depth case studies provide the best understanding of the phenomenon – context interaction. Additionally, in order to ensure strong theoretical outputs of such research, Dubois and Gadde (2002) argue for a more extensive usage of the existing theories even in explorative research (unlike, for example, Eisenhardt (1989), who advocates multiple case designs instead). As can be concluded from such arguments, the weaknesses of the case study approach can be offset by adopting an appropriate research approach and design; these will be elaborated further.

3.2.2. RESEARCHING THROUGH SYSTEMATIC COMBINING

Different research approaches are often characterised in terms of following the logic of deduction or induction. Researchers following the deductive approach would normally use the available theory to create research propositions and further use the empirical data to verify them. In contrast, inductive approaches start with no theory and systematically generate it from the empirical data. There is also a third, less traditional, approach of abduction, which lies in cross-fertilisation between the existing theories and empirical insights. Such an approach is advocated by, for example, Dubois and Gadde (2002), who state that the vast opportunities offered by the case study research are often limited by the traditional approach to the research process as a pre-planned sequence of steps. Instead, the researcher, '*by constantly*

going 'back and forth' from one type of research activity to another and between empirical observations and theory, is able to expand his/her understanding of both theory and empirical phenomena' (Dubois and Gadde, 2002, p. 555). As also emphasised by Eisenhardt (1989), the case study research often assumes iterations between data analysis and collection. We adopt such an iterative research approach for our study, as we believe that it may be particularly appropriate for studying such a complex issue as the evolution of network management capabilities. Dubois and Gadde (2002) term such a research approach '*systematic combining*'.

Similar to the grounded theory, the main objective of systematic combining is to generate new concepts and develop theoretical models, rather than to test the existing theory. At the same time, systematic combining promotes a much more active usage and reliance on the existing theories to create an outset theoretical framework guiding the researcher. Such original theoretical framework is gradually modified through the unanticipated empirical findings, as well as through theoretical insights gained during the research process. As a result, the outcome of this approach is theory development, rather than creation of a completely new theory, or confirmation of the existing one. Systematic combining rather offers an opportunity to refine the existing theories (Dubois and Gadde, 2002).

The systematic combining approach consists of two main processes: *matching* and *redirecting*. The research process is initiated with a preliminary theoretical framework, consisting of articulated preconceptions; this framework guides data collection. The mismatches between the collected empirical data and this theoretical framework stimulate the search for other useful theories, which could complement the general framework and address the inconsistencies. The resultant revised theoretical framework directs further efforts of data collection. Such process is called 'matching', which consists of going back and forth between the framework, data sources, and analysis. According to Dubois and Gadde (2002), the existing theory should not constrain the researcher by demanding strict adherence. Theory is important, but it is developed over time. Moreover, there is no need (and it would be hardly possible) to identify all of the relevant literature beforehand. Since the empirical data collection is performed in parallel with theoretical conceptualisation, the need for and identification of the relevant theory is made in the process. In their turn, the processes of 'redirection' are an important feature for achieving matching. They imply shifting between different sources of evidence or data collection methods in search of aspects unknown to the researcher, i.e., to discover new dimensions of the research problem. Traditionally, the usage of multiple sources of evidence and multiple data collection methods are aimed at triangulation of the findings, development of converging lines of inquiry, and, basically, double checking the findings (Yin, 2003; Huberman and Miles, 2002). While systematic

combining takes advantage of triangulation, as well, it also emphasises the usage of multiple sources of evidence not only for verification purposes, but also for discovering new dimensions of the research problem. Any research aims at comparing theory with the empirical world. Systematic combining, however, makes such comparison a more or less continuous process in course of the research (Dubois and Gadde, 2002).

3.3. RESEARCH DESIGN: SINGLE EMBEDDED CASE STUDY

There are four basic types of designs for case studies (Figure 1): single-case designs vs multiple-case designs, and within those, they can be holistic (with one unit of analysis) or embedded (with multiple units of analysis).

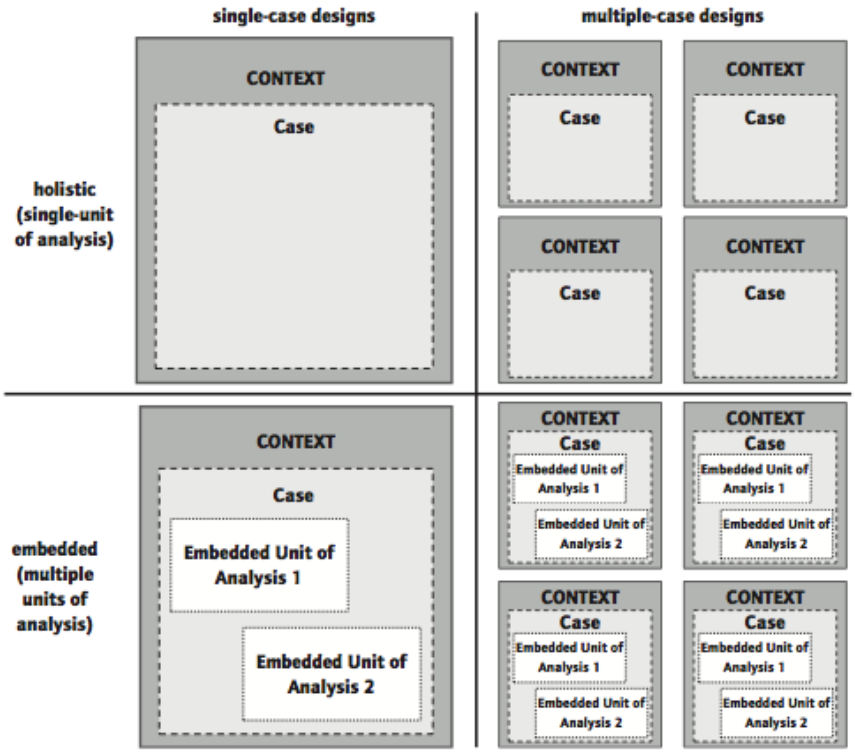


Figure 1. Basic types of designs for case studies (adapted from Yin (2003))

This work has been done using a single-case study with multiple units of analysis. This section details this design and provides the rationale for the related choices.

3.3.1. RATIONALE FOR THE SINGLE CASE STUDY AND THE CHOICE OF THE CASE COMPANY

Within the distinction between multiple and single case studies, the latter was chosen for this work. Multiple case studies are often considered to be preferable, as they render more compelling evidence and are generally more robust. However, according to Yin (2003), there are five cases when the usage of a single case study may be beneficial: (1) when a case represents a critical case, aimed at testing (confirming, challenging, or extending) a well-formulated theory; (2) when extreme or unique phenomena are illuminated by the case; (3) when a case is representative or typical, giving an opportunity to investigate an everyday or a commonplace situation, a typical project, or a typical organisation; (4) when a case is revelatory, allowing investigating a phenomenon with previously limited access of the researchers; (5) a longitudinal case (investigated the same case in several time points) aimed at understanding how certain conditions change over time.

Within such distinction of motivations for a single-case study, our primary motivation was the last one – a longitudinal case. As it is also evident from the research question, we are precisely interested in the evolution of the HB managerial capability over time in the context of the HB network. Additionally, the need for more longitudinal research has been frequently emphasised in the network-related research field. For example, Vahlne and Johanson (2014) discuss the future of international business research and, in particular, the issues of the evolution of what they call a Multinational Business Enterprise. They argue that such evolution needs to be studied through numerous micro-level events, which are very complex, context-dependent, and dynamic in nature. These events need to be pictured as a process, while the variables should be carefully theoretically underpinned and their validity tested through longitudinal case studies – before any statistical analysis becomes appropriate. Terpend (2008) argues that the research in the area of network and buyer-supplier relationships management has long been almost exclusively cross-sectional and has assumed that relationships are static in nature. Therefore, the author calls for more longitudinal studies investigating how network relationships develop and fall apart, and how different contexts may affect the development of such relationships. In a similar vein, but from the perspective of intra-firm relationships in a global organisation, Michailova and Paul (2014) call for

longitudinal studies that would integrate the issues around the temporality of such relationships.

There is also another important reason for choosing a single-case study approach, not mentioned by Yin (2003) that lies in the peculiarity of networks as the objects of the research. Although our main focus is on the HB network management capabilities, they are tightly connected to the network in which the HB operates. And, as argued by Halinen and Törnroos (2005), studies of networks to a large extent allow and even assume a single case study. This is because the investigation and description of networks, their characteristics, development and management represents a significant challenge. The uniqueness of each particular network (due to the context specificity and historical background) makes it difficult to make comparisons among the networks. These authors also advocate a need for longitudinal case studies when dealing with networks: dynamism is an inherent feature of the organisational networks, which precisely calls for including the time perspective into the investigation.

In the same vein, Dubois and Gadde (2002) criticise the common prejudice against single-case study designs. The authors argue that when a research problem is focused on the analysis of a number of interdependent variables in complex structures (like networks), a more logical choice would be to conduct an in-depth investigation of a single case. Stake (1994) notes that the comparison among multiple cases is a powerful tool, but it draws the attention of the researcher to a limited number of elements to be compared, thus obscuring other knowledge of the case. Additionally, in their discussion of systematic combining as a research approach (used in this work, as well), Dubois and Gadde (2002) explicitly position it as particularly suitable for the single case studies. The approach allows taking full advantage of the single case, rather than spreading the same limited resources over a number of cases.

Several other pro-single-case rationales offered by Yin (2003) also provide support for our choice of the research design. Thus, our research interest was derived from the context of a commonly observed phenomenon of organisations operating on a global basis. Such companies are a commonly observed product of the contemporary reality of global competition and interconnectedness. Therefore, we aimed at capturing the circumstances and conditions of a 'commonplace situation' - a typical case of a manufacturing company of a European origin with a global setup. In light of this, the investigation in this work may be referred to as a '*typical case*', that can be successfully investigated using a single-case study. Also, in particular in Paper 1, a single-case approach is justified as a '*critical case*'. This paper addressed the evolution of the intra-organisational global network, which was scarcely studied

previously. However, the paper used a rather well-articulated theoretical model as a conceptual background. Therefore, together with other objectives in the paper, a single case was used to confirm, challenge, or extend this model.

Last but not least, the conduction of multiple longitudinal case studies in the network context would require extensive resources and time beyond those available to a single researcher (Halinen and Törnroos, 2005; Yin, 2003). This is true for the author of this work, lacking an opportunity to benefit from data collection in cooperation with other researchers.

We believe that the provided arguments show that the rationale for and conditions of this research can best be satisfied by and, to a large extent, favour the usage of a single-case study research design.

Choice of the case company

Selecting the company for the case study is an important step because, even for a single case study, such choice may define the limits for generalising the findings. Also, a common argument against the single case studies is that they impose a high danger that the chosen case may later prove to be not suitable for illuminating the studied phenomena (Yin, 2003). Therefore, a researcher has to carefully scrutinise the potential case to ensure that the case is not misinterpreted and the data is accessible.

For the present study, the selection criteria for the case company included (1) a substantial offshoring experience (since we are focused on the offshoring process and network evolution); (2) a large size (since we assumed that managing operations on a global scale would require quite substantial resources, which the smaller companies may not possess); and (3) sufficient access to the potential data (to the interviewees and field observations) in several locations within the organisation. Such access was very important, because this work is concerned with relationships among the organisational units (subsidiaries and the HB). The ability to collect data from multiple units, and not from only one of them, is important for drawing unbiased conclusions (Yin, 2003).

To ensure that the chosen company was a proper fit with the research focus, as well as was sufficiently accessible for the investigation, we conducted a pilot investigation at the potential company. Such investigation was made in the form of a workshop, where we presented the overall interest and the initial framework of our research to the management. We also discussed with them whether and how it is relevant for the company, as well as obtained some initial data about the company operations. The positive feedback from the company representatives and the

interactive format of the workshop allowed us to secure their cooperation for the further in-depth study. It should be noted, however, that the theoretical framework used at the beginning of the investigation, was substantially modified and redirected in the course of the further research. Also, the case as such changed in the process from being the company as a whole to several embedded cases – product lines in the company (this choice will be covered in more detail further). Such changes were envisioned and justified by the research approach of systematic combining, described earlier. According to this approach, the main concern of sampling is to achieve an appropriate matching between the reality and theoretical constructs. Therefore, sampling is treated here not as a stage of the research process, but rather a continuous process in itself. Sampling and data analysis are overlapping and mutually impacting (Dubois and Gadde, 2002).

3.3.2. EMBEDDED CASES

Within the distinction between holistic and embedded single case studies, the largest component of this work was performed using the embedded design. (We say the 'largest component of the work' here, because, as it was mentioned earlier and as it will be explained in detail further, initially we started the study at an overall organisational level – a holistic design. However, after obtaining some empirical data, the focus of the study and its units of analysis were 'redirected' in accordance with the systematic combining approach.)

The case study had three embedded units of analysis: three products that have been produced by the company in the period of 1999–2014. The criteria for selecting these products included (1) similar current network setting in terms of having several interconnected and captively owned subsidiaries involved in their production; and (2) similar product complexity (this is because product complexity could potentially influence the amount of managerial attention required for their management (Ellegaard et al., 2003). Such embedded design allowed the case company, its situation, and its efforts to reorganise and manage activities, serving as a common frame around the product subcases. Therefore, the HB managerial capabilities related to each product could be analysed in their shared context. However, the main goal of such design was not to compare the subcases, but to analyse the variation among them. A shared setting allowed better understanding of such variation. Thus, the fact that the subcases were not totally independent increased their common input to the general case (Dubois and Gadde, 2002). As a result, the sub-cases were also chosen to provide examples of the polar types. This

polarity was reflected in (3) the current location of the product responsibility (in or outside the HB), as well as in (4) the previous HB experience with the product production. This is because we believed that such differences could potentially alter the managerial capabilities of the HB. Applying a common logic for choosing cases in multiple case study designs to the choice of the embedded cases, the product sub-cases in this research were chosen based on the theoretical replication logic, rather than on the literal replication logic.

3.3.3. THE OVERALL RESEARCH FLOW

It has been suggested that exploratory research should be initiated with a minimum of pre-defined theory and no hypotheses to test. Otherwise the early adopted theoretical perspectives or propositions may lead to biased perceptions of the data (Eisenhardt, 1989). It is useful to have in mind some constructs based on the relevant literature. However, at the start of the inquiry a researcher is recommended not to consider specific relationships between variables and theories. However, such recommendations are tailored more to the theory-building from multiple case studies, where a multiplicity of cases allows compensating and substituting for the lack of the *a priori* theoretical developments. In such an approach, the emergent new theory is both created and tested through corroboration with multiple cases. However, the systematic combining approach used in this work enables theory development, rather than theory-building. Therefore, an extensive reliance of the researcher on the existing theories is very important, overriding the 'clean slate' recommendations (Dubois and Gadde, 2002). This should result in novel refinements of the existing theories. Moreover, the reliance on the existing theories is believed to compensate to some extent for the lack of replication through multiple cases.

Following this view, we started out with a theoretical framework synthesised from the available literature, discussing possible constructs, as well as possible relations among them. Its initial focus was on the various operational and technological capabilities of the HB, while managerial issues were at the periphery of the research interest. The speculations about the relationships revolved around how different offshoring factors and changes in them (e.g. offshore volumes, characteristics of the offshored functions and shared activities, offshoring governance modes, number and capabilities of the offshore partners/subsidiaries, distances between them and the HB, power relations, and so on) impact these HB capabilities and their developmental trajectories.

Further, we performed a pilot case study that was predominantly aimed at confirming that the discussed concepts were relevant for the chosen case company, that it does experience the challenges we projected, and that it will be willing to participate in an in-depth study.

Next, the first round of data collection was made at the HB with key high-level management staff. The obtained empirical data showed the mismatches with the preliminary framework. While the overall idea held true, it became apparent that the main challenge the HB experienced through offshoring was not related to its operational or technological capabilities, but to its ability to manage the globally dispersed operations. Moreover, the issue of interconnectedness and interdependence (network issues) surfaced as being more important than characteristics of the offshoring initiatives or tasks. Also, the prevalence of the challenge of intra-organisational relationships, rather than relationships with the external parties, was evident. Further exploration of the relevant literature allowed us to refocus and refine the initial framework, as well as to arrive at certain propositions, guiding further empirical investigation. We also created a strategy for an embedded case-study that further allowed addressing these propositions. This was followed by the second round of the interviews at the HB, as well as at the subsidiaries.

3.3.4. THE UNIT OF ANALYSIS

The main unit of analysis in this work, the HB network management capability, was investigated both on the organisational and specific product levels.

Network management capabilities were studied predominantly at the level of particular products, or more precisely, the HB staff (both managerial and operational), who were working with these particular products and were involved in the product-related interactions with other network members (staff from other subsidiaries), therefore being the potential carriers of such managerial capabilities. According to Yin (2003), the characteristics of the groups (the HB as a group of people possessing network management capabilities) may be derived from the characteristics of their individual members. This justifies obtaining case data from and about each member of the group. On the side of the subsidiaries, we interviewed staff, accordingly, involved in the interactions with the people interviewed at the HB and at the sister subsidiaries.

The intra-organisational network evolution process provided a context for the study of the HB managerial capabilities. Such process was also studied at the level of particular products. The network evolution process is defined in this work as the temporal sequence of events creating or altering network configuration over time (Chapter 2, Section 2.4.4). To capture such important changes in retrospect, the event-based approach was used. Halinen and Tornroos (2005) argue that it is particularly appropriate for studying changes in a network context. Network processes can be captured through studying the events that trigger or mark important transition periods in network development. Thus, in the present study, the interviewees were asked to share their experiences of events that occurred during a certain time period, were connected to their global operations, and significantly altered or challenged the way in which they worked, their performance, or general company organisation. The starting point of the process investigated was the first decision to relocate production abroad; the end point was limited by the time of data collection.

Moreover, the method of systematic combining led to obtaining case data on both organisational and individual product levels of analysis. Thus, based on the first round of empirical enquiry with the top management, we first addressed the company's evolution process, the HB capabilities within it, and general challenges at a 'high' overall organisational level. Further, the created insights were extended by adding three separate cases in which the location of the product responsibility and previous HB experience with the product were different. This tactic allowed the initial framework to be extended to include dynamic effects of altering location of product responsibility and the previous product experience. Such design allowed avoiding the pitfalls of both exclusively holistic and exclusively embedded research designs. Having an embedded design allowed us to avoid maintaining the too-high levels of abstraction and to examine the phenomenon in more operational detail. At the same time, the holistic design at the outset allowed the return to a larger unit of analysis (from the product to the organisational level), because the purpose of the investigation was to learn something about the organisation and not about the individual products.

3.4. DATA COLLECTION

The data collection was made through semi-structured interviews, archival documents, and on-site observations.

Interviews

Interviews were the most important source of the case evidence in this study. In total, 28 interviews lasting on average 1.5 hours were conducted with managerial and operational staff at the Danish HB and the subsidiaries in China and Slovakia (Table 1).

Although the main focus of this work is on the managerial capabilities of the HB, it was important to interview not only the managers, but also employees at lower hierarchical levels, who are on the front line (Johanson, 2004). This has been done for several reasons. First of all, this allowed us to more closely approach the important challenges on the operational level, rather than on the abstract organisational one. This also invested into triangulation of data, acquiring perceptions of the same events by different respondents, often representing different sites (in Denmark, Slovakia, and China). Moreover, the approach to network management adopted in this study includes both traditional hierarchical managerial functions and softer forms of influence, for example, brokering and consulting. Such theoretical considerations implied a need for interviewing people involved in global operations, regardless of the official status they have in the organisation. Additionally, as it was also argued in Chapter 2 (Section 2.4.4) and in Paper 3 (Part 2), global network management capabilities of the HB are expected to be connected to the physically and culturally distant resources (located at the subsidiaries). Therefore, the understanding of such managerial capabilities and, especially, changes in them, would be incomplete without having access to the resources on which they are based. And these resources are not necessarily located at a managerial level. For the same reasons, interviewing employees from the sites in Denmark, Slovakia, and China was an important component of the investigation. Moreover, since the intra-organizational network was considered, questions about intra-organisational relationships, especially complicated by cultural and organisational distances, could hardly be reliably studied by addressing only one party in such relationships (Yin, 2003).

The respondents were identified, starting from the position of the ‘global product responsible’ (GPR) – product engineer, having a central responsibility for a particular product produced at several sites. We aimed at interviewing the employees who cooperate with this person on a daily basis both at the HB and on sites in higher and middle management, production, R&D, sourcing, and quality departments. Thus, we were able to investigate the whole network of relationships connecting different sites in the organisation.

Mainly the semi-structured interviews were used, following the interview protocol. Mostly open-ended questions were used. To facilitate the addressing of such questions, the interviewees were frequently asked to provide precise examples of certain situations, activities, or challenges from their own experience, additionally or instead of describing them in general.

Table 1. Interviews statistics

	Respondent(s)	Date	Location
1.	*Group interview with:* - CEO - SCM director	November 26, 2014	Denmark
2.	*Group interview with:* - CEO - SCM director - Production development manager	December 17, 2014	Denmark
3.	*Group interview with:* - Product maintenance manager (electronic devices) - Production development manager - Product maintenance manager (mechanical devises) - Global project manager	December 17, 2014	Denmark
4.	*Group interview with:* - Quality manager - Sourcing director - Production development manager	December 18, 2014	Denmark
5.	*Group interview with:* - CEO - R&D director	December 18, 2014	Denmark
6.	Global product responsible (GPR) (product A)	July 1, 2014	Denmark
7.	Operations manager	July 2, 2014	Denmark
8.	Product maintenance manager (mechanic devises)	July 2, 2014	Denmark
9.	Product maintenance manager (electronic devices)	July 3, 2014	Denmark
10.	Line quality specialist	July 2, 2014	Denmark
11.	Production engineer	July 3, 2014	Denmark
12.	Production development manager	July 3, 2014	Denmark
13.	Director of operations	August 19, 2014	China
14.	R&D manager	August 19, 2014	China
15.	R&D project manager	August 19, 2014	China
16.	Operations manager	August 19, 2014	China
17.	GPR (Product C)	August 20, 2014	China
18.	Product engineer (Products A, B)	August 21, 2014	China

19.	Quality manager	August 21, 2014	China
20.	Production processes engineer	August 22, 2014	China
21.	Purchasing manager	August 22, 2014	China
22.	GPR (Product B)	September 2, 2014	Slovakia
23.	Production manager	September 3, 2014	Slovakia
24.	Product engineer (Product C)	September 3, 2014	Slovakia
25.	Product engineer (Products A, B)	September 4, 2014	Slovakia
26.	Quality manager	September 4, 2014	Slovakia
27.	Manufacturing engineer	September 5, 2014	Slovakia
28.	Director of operations	September 5, 2014	Slovakia

Moreover, visual aids were used, like charts, a time line, and theme and concept "bubbles" and maps, to visually communicate main points and themes of interest to the interviewees. This both facilitated their engagement in the conversation and stimulated talking about connections and possible causal relationships between different events and concepts. Such aids also served for documenting some important points expressed during the interviews.

The interview questions were altered to some extent from subsidiary to subsidiary, when unexpected and potentially interesting topics or observations arose. This was also due to the practice of the researcher to summarise the learnings and reflect on the differences among the cases after each round of interviews. Such practice of frequent overlap of data collection with data analysis, as well as subsequent adjustments to the data collection instruments, is acceptable and recognised. It allows taking advantage of flexible data collection, which is a major advantage offered by the case study research approach (Eisenhardt, 1989).

All of the interviews were digitally recorded with the permission of the interviewees. This allowed focusing on the interview process and possible additional questions, rather than on manually recording the information. Records were further transcribed to facilitate a more robust analysis (Fisher, 2004).

Documents and archival records

Secondary data collected during the research included minutes of meetings, administrative documents (e.g., plans, progress reports, and product performance reports), presentations of strategic change plans and company vision, information posted on the company's internal website, product descriptions and presentations, job descriptions, and company procedures. In this work, most of the accessible documentation was stored on the company's website. A considerable amount of time in the investigation was allocated to reviewing it. However, the documentation base was scarce and rather scattered. Historically, the company's website was not very

popular with the employees (especially at the subsidiaries) for uploading documents and records. Most of the internal documentation was located in the e-mail correspondence of the employees. Although we were allowed to glance at some examples during the interviews, the detailed access to personal correspondence was unavailable. At the time of the interviews, the company had started reorganising its website to promote its more active usage, and many of the older documents were collected and uploaded 'in batches', often lacking coherence and completeness.

Because of such circumstances, available documents were treated with cautiousness, giving primary importance to the interviews. Many of the documents were used mainly for mitigating potential problems of the interviewees' inaccuracy (Bernard et al., 1984) through addressing any inconsistencies across these two sources of data. Documentation, such as product performance reports, various presentations, and job descriptions, was provided by separate interviewees upon request. The available documentation largely corroborated the information provided by the interviewees.

Observations and physical artefacts

As part of data collection, the author of this work observed product samples and exhibitions of the product history at the subsidiaries, was introduced to the used product configuration systems, and made visits to the shop floors and laboratories of every subsidiary, as well as undertaking three full days of observations of the work of global product engineers (one day for each site).

Observations and facility excursions were an important part of the investigation, as they provided an opportunity to observe some relevant behaviours, activities, interactions, and environmental conditions that served as additional evidence and context to the information collected by other means. For example, observations at the shop floors provided support to the statements that the HB shop-floor organisation was largely copied at the sites – in terms of both production and office layouts. This illustrated the described methods the company used for successfully relocating/replicating its production and also, to some extent, organisational culture. Additionally, the day-long observations ('shadowing') of the work of global product engineers on all of the sites provided some impression about the workload they had on different dimensions and relationships they were supposed to cater to. These observations also offered some insight into and evidence of the manually handled change procedures, and various consultation requests and discussions, through glancing at typical email threads of the employees. Manually written notes were taken during such observations and facility excursions.

Additionally, the excursions at the facilities were particularly useful for acquiring the 'same language' with the interviewees in terms of the shared understanding of

the equipment, processes, activities, tools, and technologies they were referring to during the interviews.

Case identities

The case company identity, product descriptions, and identities of the interviewees had to be kept anonymous in the case study. The case company identity was obscured upon the company's request. The confidentiality of products was maintained because of few companies producing these products in Denmark. Therefore, naming the products would allow identifying the case company quite easily by the reader, which was undesirable. The positions of the interviewees were undisclosed because of the agreement made with the interviewees before the interviews. Many of the investigation issues concerned the relationships inside and across the subsidiaries in the company and, thus, the inability to keep interviewees' identities anonymous may have prevented them from speaking freely.

3.5. ANALYTIC STRATEGIES AND TECHNIQUES

The analysis of the case study data is a scarcely developed area and the most difficult part of the case study research (Yin, 2003). In contrast with statistical techniques, there is little guidance available to help the researcher. A large deal of analysis quality depends on the personal capabilities of the investigator in logical thinking, presentation of the material that makes sense in terms of the case study, and ability to develop a precise analytic strategy. Yin (2003) describes four types of general analytic strategies: relying on theoretical propositions, thinking about rival explanations, developing a case description, and using qualitative and quantitative data. Three of these strategies (except for combining qualitative and quantitative data) were used in this study because they are not mutually exclusive and can be applied in combination. Moreover, a set of analytical techniques was used, including pattern matching, time-series analysis, and cross-case synthesis.

Certain manipulations with the data were helpful in enabling the implementation of the chosen analytic strategies. Among such analytic manipulations described by Huberman and Miles (2002), we used techniques of data reduction and displays: created data displays for examining the data (flowcharts using sticky notes) and chronological order of events, made tables, figures, and matrixes of categories, and placed evidence within such categories. These techniques are aimed at simplifying, abstracting, and transforming complex data of the qualitative research to be more assessable and compact.

Further, the usage of the mentioned analytical strategies and techniques will be described in more detail.

Case descriptions and cross-case comparison

The **case description** regarding the network evolution history in general was first written up based on the top management's perceptions, referring to the overall organisational level. Later on, we focused on producing similar case descriptions of each product sub-case.

Furthermore, these product histories were **cross-compared** both chronologically, and on a multiplicity of other elements of interest, and against the earlier general description of the management. Such inter-product comparison allowed the construction of a fuller picture of the organisational evolution as a whole, and also going up from the product level of analysis to an organisational level. Noting similarities and differences in products' histories and managerial activities displayed by the HB personnel within each product both strengthened and completed the results.

In terms of capturing such a concept as network management capability having a possibility to cross-compare several product cases, we believe, rendered more robust findings, than if collecting information only on the general organisational level or from a single product case. Therefore, we believe that the validity of findings was positively impacted by such an approach in a way similar to conventional multiple-case studies or 'two-case' case studies (Yin, 2003). Thus, for example, in **Paper 2**, the patterns of certain capability types were noted during the analysis of the first sub-case. Further, we searched for their confirmation in other product sub-cases (here, similar parts in the products' histories confirmed some HB capabilities, while contrasting parts in the products' histories allowed noticing changes and emergence of the new capabilities). As a result of such analysis, a range of different capabilities was established along the company's history. These capabilities were also compared against the existing literature. In **Paper 3**, within each product history, we tracked how the effectiveness of the HB managerial capabilities was affected by changes in distance dimensions. Similar parts in the products' histories allowed supporting the emergent proposition about capability development through interaction between the HB and the sites, stimulated by distance. Further, contrasting parts in the products' histories allowed seeing the 'dynamics of the phenomenon within the single settings' (Eisenhardt, 1989). That is, we saw what happens to the HB managerial capabilities when the interactions between the HB and the sites ceased. Therefore, comparison across these two cases allowed us to draw conclusions about the

mechanisms of creation and erosion of the HB managerial capabilities and the role of distance (contextual differences) in this process.

As it was mentioned in Section 3.1, cross-case analysis is poorly applicable in the context of a single case study. However, the fact that the case in this work included several embedded cases allowed us to make some use of the cross-case comparison, and therefore, increase the robustness of the conclusions. However, the primary purpose of such cross-comparison was the ability of sub-cases to complement each other to provide a fuller picture of the overall organisational phenomenon (Dubois and Gadde, 2002). Thus, on the organisation-level of analysis, the cross-case comparison of the sub-cases served to corroborate and enrich the data on the general intra-organisational network evolution process. In contrast, on the product level of analysis, the cross-comparison of the sub-cases cases served both replication and complementing purposes.

Pattern-matching, time-series analysis, and rival explanations

Such techniques as **pattern-matching** and **time-series analysis** were also employed to some extent. According to Yin (2003), such techniques are suitable for explanatory or causal studies, and not for descriptive or exploratory ones. They represent a way of linking empirical data to theoretical propositions, therefore increasing the internal validity of the research. As mentioned earlier, this work is of a more exploratory nature. There is little known both empirically and theoretically about the HB network management capabilities and how they change along the intra-organisational network evolution. Therefore, there is little certainty in that the actual causes of events are precisely or exclusively those included in the study. However, existing theory on the mechanisms of networks' evolution, as well as on the choice, effectiveness, and dynamics of the intra-organisational control mechanisms, may have been relevant and have some validity in relation to the studied issues. This is where the analytical techniques of pattern-matching and time-series analysis were applicable within this study.

For example, **pattern-matching** was useful for leveraging, evaluating, and refining the existing theories in relation to the issue of the HB network management capabilities and network evolution. Pattern-matching involves comparing the empirically based pattern with a predicted one. Thus, for example, in **Paper 1** the empirical patterns were compared with those predicted by the Uppsala model (Vahlne et al., 2011) could, for example: '*knowledge of the HB allows making reconfiguration decisions*' or '*network reconfigurations affect the HB knowledge-base*'. In **Paper 2**, we compared empirical data to the theoretically implied patterns of changes in control approaches used by the HB, for example: '*increase in*

subsidiaries' capabilities will lead to decentralization'. Also, throughout the research process, we have tried to consider various potential relationships and consequent rival explanations, while outlining the most relevant ones.

Another important analytical technique was **time-series analysis**. The case study method allows following changes over time. Organising events in a case study in a chronological sequence is more than just a descriptive device; this procedure can allow the investigation of causality of events – the effect would normally follow the cause in time (Yin, 2003). However, as it was already mentioned for the pattern-matching technique in relation to the chosen research topic, little is known about the causal relationships and typical chronological patterns in the development of the HB managerial capabilities. This emphasises the exploratory nature of this enquiry, where it is hardly possible to postulate any confident causal relationships. However, some theoretical models were available, predicting the network evolution patterns and patterns of changes in the control mechanisms used in the global organisations – which were useful for the analysis of the actual topic of inquiry through the time-series analysis. For example, as described in detail in **Paper 1**, tracing different events over a certain period in the company's offshoring history showed a particular sequence of changes in organisational configuration elements leading to a networked organisational model. Such sequence was similar to the staged process offered by a single case study made by another author. Such comparison allowed increasing the internal validity of the suggested process model. An example from **Paper 2** may be that tracing different events over a certain period in the company's offshoring history allowed the identification of a general pattern in the evolution of control approaches of the organisation, where centralisation of control today appeared to likely be followed by decentralisation in the future, and vice versa, based on specified contingencies. In **Paper 3**, we traced the impact of distance on the HB managerial capabilities during consecutive events over a certain period in the company's offshoring history. Contrary to the propositions set out in the theoretical background, the effectiveness of HB network management capabilities appeared to be affected by distance in the intra-organisational relationships in an inverted U-shape manner: first positively, and later negatively.

However, it should be emphasised here that the elements of analysis against existing theories were only a part of this investigation, and allowed shedding certain light on the applicability of these theories within the topic of this work. The main part of the investigation was of exploratory nature (it was described at the beginning of this section and was related to the contents of the HB network management capabilities, and the process and mechanisms of their evolution). For this exploratory part, the existing theories served as a basis for constructing propositions and collecting data. And, we believe that the fact that they were to some extent confirmed within the

particular context of our study positively affects the validity of the overall research outcomes.

3.6. QUALITY OF THE RESEARCH DESIGN

The quality of the research is normally evaluated in terms of whether the results represent reality or not. The commonly used measurements for such evaluation include validity and reliability (Yin, 2003). Validity is concerned with ensuring that the study examines what was actually intended to be examined. Reliability involves ensuring that the research activities within the case study can be repeated by other researchers (on the same case) with the same results. According to Yin (2003), there are three types of validity that should be considered: construct validity, internal validity, and external validity. Each of them was, to some extent, addressed in the previous discussion of the research design, data collection, and data analysis techniques. However, we will additionally address them further, as well as the issue of reliability of the study.

3.6.1. CONSTRUCT VALIDITY

Construct validity requires a researcher to ensure that the investigated concepts are operationalized correctly. Case studies are often criticised for the lack of sufficiently operational measures and the prevalence of subjective judgments during the data collection (Yin, 2003). To ensure construct validity in this study, first of all, multiple sources of evidence were used, including the conduction of interviews across the multiple management levels in the case company. Data triangulation was achieved mainly through having multiple respondents discussing the same situations (e.g. the same historical events in the company's history, the same challenging situations, cooperation with the same people, and participation in the same projects). This was facilitated by having the same core structure of the interviews, following a stable interview protocol. Moreover, we were explicitly seeking for different interviewees' perceptions of the same situations and, especially, important historical events. Such opportunity to use multiple sources of evidence is a major strength of a case study investigation (Yin, 2003). Establishment of the chains of evidence was enabled by the full transcription of the interviews and data reduction through visual displays that enabled a better overview and comparisons of the empirical data. Moreover, two

workshops were conducted with the key management staff (each after a major data collection round) to verify the overall accuracy, as well as to receive additional information and feedback.

3.6.2. INTERNAL VALIDITY

Internal validity assumes the establishment of a causal relationship, in which certain conditions result in other conditions (Yin, 2003). As mentioned in Section 3.5, the concerns about internal validity are applicable to explanatory or causal studies only, and not to descriptive or exploratory studies. This work is of a more exploratory nature. There is little known both empirically and theoretically about the HB network management capabilities and how they change along the intra-organisational network evolution. Therefore, there is little certainty that the actual causes of events are precisely or exclusively those included in the study. However, existing theories on the mechanisms of networks' evolution, as well as on the choice, effectiveness, and dynamics of intra-organisational control mechanisms, may be relevant and may have some validity in relation to the studied issues. Therefore, to some extent, pattern-matching was used to shed light on the applicability of these theories in relation to the topic of this work. Rival explanations were also addressed to increase internal validity.

3.6.3. EXTERNAL VALIDITY

External validity requires the establishment of the population of situations or contexts to which the study's findings can be applicable. In multiple case studies, the replication logic is used to establish external validity, while in the single case studies, theory is used for this purpose. Case studies cannot be generalised to populations or universes, but can be generalised with regard to theoretical propositions (Yin, 2003). Overall, the company for this case study was chosen to represent a 'typical' case of a European company that has offshored its production operations and experiences for continuous altering of its global setup. Therefore, we believe that it would be fair to suggest that the findings and propositions in this work can be generalizable at least to the industrial goods companies of Scandinavian origin that have relocated their production activities to such countries as China,

Slovakia, and the US, using the captive offshoring governance mode (wholly-owned subsidiaries).

However, this work did not have an intention to generalise findings to the whole population of such companies. This is because in a case study, a case company is not a sampling unit (as it would be for hypothesis testing through statistical methods). Choice of a case company is closer in nature to an experiment. In such conditions, analytic generalisation should be used, which involves comparison of the empirical findings of the case study to the existing theory.

Additionally, since the challenges of distance and growing capability levels of the subsidiaries significantly limit the managerial control of the HB of such a company, it may be suggested that the results may be relevant for the companies involved in the networks of inter-organisational relationships. Additionally, as the results of this work showed, interaction between the HB and the subsidiaries are very important for the ability of the HB to maintain its managerial capabilities and bring value to the network. It is known that the interaction between the people even within the same building significantly decreases as the distance between them exceeds 30 m (Allen and Henn, 2006). This fact allows suggesting the applicability of our results to the intra- and inter-organisational networks beyond the globally spread activities and on a more local basis – for the companies operating within the same geographical location.

3.6.4. RELIABILITY

The goal of reliability is to minimise the errors and biases in the study (Yin, 2003). To increase the reliability in this work, a case study protocol was used. Additionally, the data collected during the field research has been organised in a case study database containing the interview records and transcripts, field notes, documents, and the company website screen-shots.

CHAPTER 4. THE CASE COMPANY: GENERAL INFORMATION

The case company was created in 1976 in Denmark and became a leading industrial goods company. It has production facilities in Denmark, the US (since 1999), Slovakia (since 2005), and China (since 2007); it employs 1,600 people worldwide. The processes and equipment that the company uses are proprietary, and are designed specifically for each product line. Each facility is organised in a similar manner, consisting of two separate organisations: a sales subsidiary and a production site (except for Slovakia, where the sales are handled by the Danish site). Sales subsidiaries buy from the production sites. They are hosted in the same building, but they are different organisations.

Until 2009, each site was operating autonomously with respect to the others. The appearance of global customers and the lack of production capacity at the HB led to shared operations, requiring the HB to team up with one or several subsidiaries to produce orders for a single customer. As a result, connections and operational interdependencies emerged among the sites and the HB. This led to the interdependence of such emerging internal network members in terms of components and knowledge. Such changes also brought to the surface various organisational and capability-related challenges related to such interdependence, and initiated a chain of various reorganisations and adjustments (the details and challenges of this process are described in Papers 1-3 of this thesis).

Due to the vision of the company's management, the domestic production (at the HB) is seen as a critical competence, and the company is very committed to this consideration. Therefore, offshoring of production capacity (and especially, complete relocation) has always been viewed as undesirable. However, competitive pressures have been challenging this commitment. Moreover, domestic operations are strongly associated with the brand and exceptional quality that also stimulates commitment to and priority of the HB operations.

We will never move all the competencies abroad, and will always preserve at least some related competencies to cover. We will keep strong production here that makes sense (that still makes money). We will try to make it more efficient, and if not we will have to move it somewhere.

Production competencies and resources are largely duplicated among the production facilities making them self-sufficient. The company's products are generally divided into local and global ones. The local products are produced only for the each site's

local customers, while the global ones are produced on several sites, therefore, allowing them to combine their efforts to serve a single customer anywhere in the world. Such products are divided into standard and special articles, where the latter are product modifications according to the special demands of particular local customers. Many issues with the products are managed and resolved by the product engineers located at each site. However, some limitations exist on certain critical components, which can be modified only by or with the authorisation of the global product responsible engineer. This position assumes overseeing all of the product engineers (for a particular product) on different sites. The global product responsible engineers tend to have several products (including global and local ones) under their responsibility. The practice of the company has been to allocate such responsibility to the site with the highest production volumes.

Some of the company's suppliers are still located in Europe, as the company was yet unable to find local suppliers who would satisfy quality requirements for certain components. However, the localisation of the supplier base is growing and is constantly on the agenda due to the transportation costs and longer times for solving quality problems.

Each site has a local sourcing department, which refers to a strategic buyer in Denmark, but has some freedom to source locally, as well. Accordingly, they have direct links locally and matrix links to the sourcing organisation in Denmark. The sourcing function has a very strong center in Denmark, which is tightly overseeing global activities. When the interdependencies among the sites emerged, this function was the first one to become aligned and standardised on a global basis, establishing good structure and infrastructure. Their processes were well-aligned through methodical audits and supported by the IT systems. People, processes, systems, and procedures are well-aligned and connected. Moreover, the existing system allows the company to rather easily accommodate new sourcing personnel.

Unfortunately, the company's abilities to re-apply this successful experience to the production function are very limited. This is because, comparing with production, the company's sourcing operations are more standard from day to day. In contrast, production is much more complex, with a large variety of unique quality and operations issues, which make it hardly possible to describe a common method of handling them.

Most of the new products are developed by the Danish R&D department, after which the responsibility for the products is transferred to the GPRs. Small R&D departments have also been established in China (10 people) and the US (5 people). Except for one 'global' product recently developed by the Chinese R&D, these

departments are focused on helping Danish R&D department, and occasionally developing new products strictly for their own markets. Initially, they were established due to the lack of R&D resources at the HB and cost considerations. The longer-term strategy is to keep Denmark the center of the company's R&D activities, probably increasing the staff count that depends on whether the suitable resources are available.

We [Danish R&D department] try to not be dependent on them [the subsidiaries], we try to duplicate the competencies here. So we would never have the key elements offshored. We plan to stay the R&D center of the company. What we see from other companies that were very ambitious in offshoring to, for example, India, but suffered very low efficiency.

CHAPTER 5. DISCUSSION AND CONCLUSIONS

This chapter will summarise the main theoretical contributions of this work, as well as discuss a range of implications for managerial practice. Also, a set of conclusions (additional to those discussed in the papers in Part 2) will be highlighted in relation to general discussions of offshoring and global operations networks. The chapter will conclude with limitations and directions for future research.

5.1. THEORETICAL CONTRIBUTIONS

As it is evident from the overview of the literature informing this study (Chapters 1 and 2), the investigated topic is rather complex and builds upon several theoretical foundations and research streams. Therefore, each of the papers strives to make contributions into several areas, or more precisely, on the intersections of different research areas. Each paper featured in this thesis serves as a foundation; each subsequent paper builds upon the previous ones to gradually answer the separate research sub-questions of this work. This 'build-up' is depicted in Figures 2, 3, and 4, outlining the main theoretical contributions made in this process. Further, we will discuss theoretical contributions of the research papers in relation to each research sub-question.

RQ1: How does the global intra-organisational network evolve?

Paper 1 was aimed at answering the first research sub-question. Research propositions developed to address this question were based on one of the internationalisation theories (the revised Uppsala model by Vahlne et al., 2011) (represented by the blue bubble on Figure 2). Additionally, the particular focus on the HB and intra-organisational network were justified using the developments of the networked MNE-related research (represented by the green bubble in Figure 2).

The answer to this research sub-question may be summarised as follows: the mechanism of the global intra-organisational network evolution largely corresponds to the one suggested by the revised Uppsala model (Vahlne et al., 2011). The HB

knowledge base allows it to take and implement network reconfiguration decisions that are aimed at leading the organisation to a more optimal networked state. Network reconfigurations, in their turn, have an effect on the HB knowledge base, and so on in a continuous process. Additionally, the findings showed that such a HB knowledge base includes architectural knowledge about the network, knowledge about the subsidiaries' operations, and knowledge about how to implement particular network reconfiguration processes. At the same time, the results showed that the HB knowledge is to a larger extent a tool enabling accomplishment of the change, than a driving force behind the network evolution. Factors other than the HB managerial discretion and knowledge of opportunities can trigger its network reconfiguration decisions (for example, drivers coming from the external environment, such as appearance of global customers, or emergence of market opportunities; or so-called drivers of adaptation, related to internal negative performance implications). Although the authors of the Uppsala model do not deny the importance of external factors driving the change, they do not include them in the model that does not portray the reality to the full extent. Moreover, the findings suggested a possibility of a negative feedback loop between the knowledge and reconfiguration decisions, where certain reconfigurations may lead to the reduction in the HB knowledge, rather than to its increase, which may hamper the globalisation efforts. The findings also suggest the existence of the distinguishable stages of network evolution.

In light of such general findings, the paper, first of all, makes a contribution to the internationalisation theory with regard to the further evolution of an internationalised organisation (Figure 2). In particular, it tested, extended, and modified the revised Uppsala model (Vahlne et al., 2011). More precisely, it was suggested to complement the model with a separate box of drivers, therefore emphasising the importance of knowledge as a change enabler, and avoiding the oversimplification of the process drivers. Additionally, a range of such knowledge types was suggested to be added to the original model (described in the previous paragraph). Distinguishing among such types may be important for a more effective learning of the HB. Moreover, a clarification was made regarding the relationships between the HB knowledge and reconfiguration decisions (the earlier-mentioned negative feedback loop). This particular observation pointed to the need to devote more attention to the network's impact on the HB knowledge base, as well as on its ability to continuously bring value to its network. **This consideration provided an idea for Paper 3, and was given full attention there.**

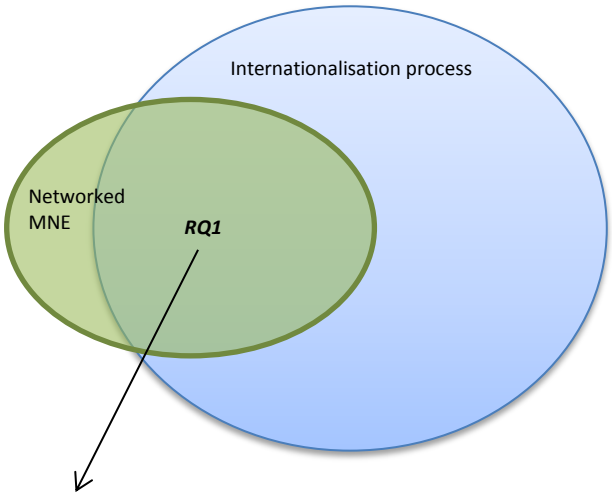


Figure 2. Schematic representation of theoretical fields informing the research in Paper 1, depicting contributions on their intersections.

Additionally, the results of the paper inform the research on networked MNEs. The paper offers a framework depicting the transformation process that the multi-domestic MNE has to undergo to achieve the networked state. Such transformation is described based on gradual adjustments in resource configuration and organisation of the MNE. Such results cover an existing research gap in this area, emphasised by, for example, Pihl and Paulsson (2014). Moreover, this paper describes challenges and emphasises the importance of the central organisation in this evolution process. This contributes to the discussions about the need for the HQ in a networked MNE (Elter et al. 2014; Ciabuschi et al., 2012), supporting the proponents of such importance. Interpersonal relationships and social control mechanisms indeed appeared to be important, but did not exclude the need for certain control, especially given the challenges to the sustainability of alignment in the organization caused by cultural differences of the subsidiaries. Moreover, apart from global projects, globalisation efforts (for example, knowledge sharing) did not yield immediate effects on the bottom line, but had a more strategic importance that was making them very difficult to be self-running, thus requiring the continuous support of management. This gives grounds to believe that the networked organisation still

preserves the need for certain hierarchical control, although the forms of such central intervention may vary. **In light of this, the various roles and capabilities of the HB in its global networked organisation were investigated in in Paper 2.**

The results of **Paper 4** should also be emphasised in relation to this discussion. This paper has been written using a different set of theoretical grounds (for example, TCE, RBV, and eclectic paradigm) and empirical base (a large-scale survey, processed with statistical methods). Nevertheless, its results also contribute to the ongoing debate regarding the need for a strong centre in an intra-organisational global network. The paper challenged the TCE, RBV, and eclectic paradigm logic by suggesting that the degree of offshoring success has little dependence on the choice of the offshoring governance mode, offshored function, or chosen destination. It is rather contingent upon the proper fit of several offshoring factors, including the managerial capabilities of the offshoring firm. Although the paper did not include the HB managerial capabilities as a separate variable in the survey, it nevertheless indirectly supports the proposition that the degree of success of offshoring as a cooperation with both internal and external entities depends on the ability of the offshoring firm to manage and foster relationships with the offshore partners/subsidiaries after the offshoring decision has been implemented, regardless of where they are located and what governance mode is used (Vahlne and Johanson, 2013). Moreover, the ability of the offshoring firm management to identify a proper strategic match between the 'ends' (offshoring motives) and 'means' (offshoring strategy) of their offshoring decisions is highly important.

The results of Paper 4 were also particularly useful in providing support to the main assumption underlying the investigation conducted in this thesis: that the sound managerial capabilities of the offshoring firm are important to ensure the success of its globally dispersed operations. The main concern of this study and the interest regarding the role of the HB in the global network stemmed from this assumption, despite the fact that contrary views exist in the extant literature. Therefore, the results of Paper 4 both provided a relevant theoretical contribution and created a more solid ground and motivation for the rest of the investigation.

RQ2: How do the types of the network management capabilities of the home base change as its network evolves?

The second research sub-question was addressed by **Paper 2**. Research propositions developed to address this question were built using the network management theory (represented by the red bubble in Figure 3) and the concept of management roles, as well as on the RDT and Network theories, predicting the choice of control

mechanisms in the MNE, based on the power balance between the HQ and subsidiaries (represented by the green bubble in Figure 3).

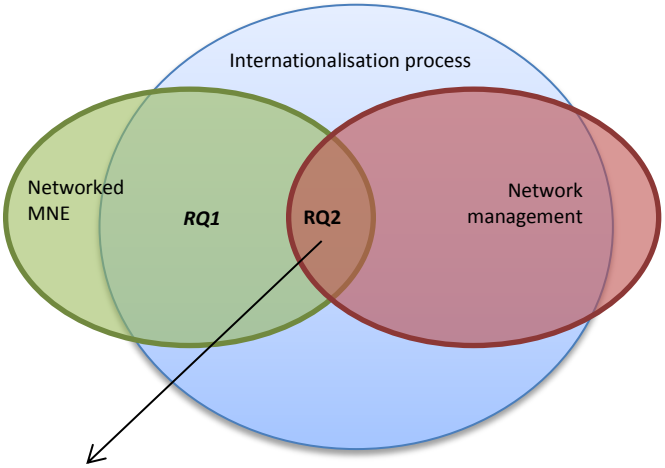


Figure 3. Schematic representation of theoretical fields informing the research in Paper 2, depicting contributions on their intersections.

The general answer to this research sub-question may be summarised as follows: the strategic roles and capabilities required from the HB to manage its intra-organisational network differ depending on the level of the subsidiaries' competencies, and subsidiary-subsidiary and HB-subsidiary relationships. The particular capabilities are described in detail in Paper 2. In general, with the growth of network complexity and scarcity of resources at the HB, the nature of the HB network management capabilities changes from operational to more strategic ones. This change is accompanied by the reduction of the HB direct influence over the subsidiaries and distancing of the HB from the subsidiaries.

In light of such findings, the paper makes a contribution to network management theory by offering a typology of intra-organisational networks and a description of the corresponding HB managerial capabilities. The typology is in the form of a two-by-two matrix with dimensions reflecting different levels of subsidiary connectedness with the HB (low or high) and primary control approaches of the HB (decentralisation or centralisation). A range of particular managerial capabilities is discussed in detail as conditioned by the context of each quadrant. Such contribution is a direct response to the call by, for example, Järvensivu and Möller (2009), for

studies matching particular network types with particular network management roles and corresponding capabilities. Moreover, in their work on network management capabilities in the context of innovation networks, Fang et al. (2014) suggested distinguishing between operational network management capabilities and strategic ones. Our work has confirmed such division in the context of intra-organisational global networks. Additionally, it showed a particular sequence of development of such capabilities, where operational knowledge about the network and experience with operational network management capabilities constitute an important prerequisite for the company to formulate its strategic network vision and develop corresponding strategic capabilities.

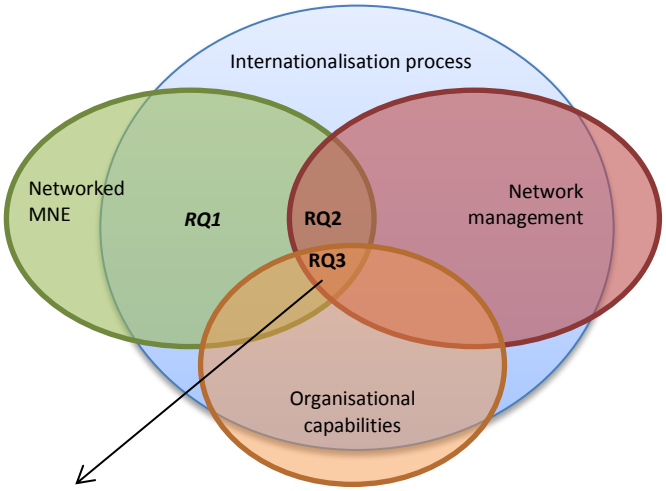
From the viewpoint of the MNE-related research, the paper makes a contribution to the understudied area of the dynamics of the control mechanisms in the MNE over time (Ambos et al., 2011). In particular, the findings showed a particular control-autonomy dynamics, whereby an autonomous subsidiary is likely to become more centralised in the future. This may happen due to (1) the lack of the subsidiary-subsidiary connectedness, or due to (2) the lack of the HB-subsidiary connectedness. At the same time, centrally controlled subsidiaries are likely to gain higher autonomy in the future, conditioned by the HB resource scarcity. Additionally, the results in this paper challenged the RDT and Network theories with regard to their ability to predict the choice of the control approaches in the MNE. It was suggested that one single theory is insufficient to explain the power of the HB in the network and subsequent choice of control mechanisms. Instead, as the discussion in Paper 2 showed, a combination of theoretical approaches is likely to render more realistic results.

RsQ3: How does network evolution impact the effectiveness of the existing managerial capabilities of the home base?

Finally, **Paper 3** addresses the third research sub-question. Research propositions developed to address this question were built using the network management theory and the concept of management roles (represented by the red bubble in Figure 4), two opposing theoretical perspectives in the networked MNE literature regarding the value-bringing potential of the HQ in an MNE (represented by the green bubble in Figure 4), and theory of organisational capabilities (represented by the orange bubble in Figure 4).

The general answer to this research sub-question may be summarised as follows: network management capabilities of the HB are based on geographically and culturally distant resources (resources found in the dispersed intra-organisational

network) and are developed through experiential learning in the interaction with these resources. Distance (contextual differences) among the network members affects the nature and intensity of such interactions, thus impacting the effectiveness of the HB managerial capabilities. Network evolution (changes in network configuration) continuously brings new distance dimensions into the equation, making distance a recurring challenge. In particular, an inverted U-shaped relationship was observed between distance and HB managerial capability over time, conditioned by the varying impact of distance on the nature of such an interaction. More precisely, at the beginning of the global network evolution, cultural, organisational, and language differences were stimulating such interactions and, thus, stimulating the HB to develop managerial capabilities. However, further introduced differences in the production context (first process-wise and then product-wise) disrupted the 'experiential learning loop' (Kolb et al., 2001) and left the HB with only limited conceptual knowledge about the subsidiaries. This challenged the effectiveness of the HB managerial capabilities as well as its ability to develop new ones.



Contribution: Contextual differences (spatial, cultural, and technological distances) among the resources on which the HB managerial capabilities are based impact the effectiveness of these capabilities through affecting the mechanism of their development and sustainment. Changes in the network (its evolution) make these differences a constantly recurring challenge.

Figure 4. Schematic representation of theoretical fields informing the research in Paper 3, depicting contributions on their intersections.

In light of such findings, **Paper 3** makes a contribution to the discussion of the conditions of value creation by the HQ in an MNE, and offers an attempt of

resolution of an argument between the two contradictory perspectives on the knowledge situation of HQ ('rationality perspective' and 'radical uncertainty view') (Forsgren and Holm, 2010). The results of Paper 3 suggest that both perspectives can hold true, but at a different time of the company's history. As the case showed, lack of HB knowledgeability about the network manifests itself over time as the contexts of the HB and the sites grow apart, discouraging detail-based interaction between the two. The ability of the company to avoid descending into the value-destruction stage is important here. And such ability corresponds to the one advocated by the proponents of the 'dual process' view on dynamic capabilities (Camilo Dávila, 2010; Schreyögg and Kliesch-Eberl, 2007). They argue that if a company wishes to continuously sustain its capabilities, it needs to be able to monitor the signs of existing capability deterioration and subsequently improve or replace such capability when needed. This is opposed to a more common view of dynamic capabilities as separate high-level routines, aimed at renewal and creation of operational capabilities. Therefore, the results of Paper 3 may contribute to the dynamic capabilities discussion, as well.

Such findings also contribute to an enduring discussion in the international business literature on finding a balance between control and autonomy in the multinational enterprise. The findings support the proponents of the dynamic oscillation view on autonomy and control, as opposed to the search for equilibrium. For example, Thomas et al. (2005) suggest that the most important issue is to find an appropriate rate of oscillation between involvement and non-involvement (centralisation vs. autonomy). This work, however, suggests directing attention to timely detection of the need for such oscillation.

Additionally, a contribution is made to the research field of organisational capabilities. As argued in Chapter 2 (Section 2.4.1), few previous studies explicitly considered the processes of development and, especially, erosion of organisational capabilities in the network context. In light of such gaps, it has been shown that network management capability is based on and developed through interaction with globally dispersed network members as a response to certain challenges. In particular, the distances (contextual differences) separating these network members appeared to have an important influence on the development and performance of the HB managerial capabilities (as described earlier in this section). Therefore, the findings confirm the problem-driven nature of capability development (Lampel, et al., 2009; Manning, 2014). Moreover, the paper illustrates the processes of development and erosion of such capabilities. It has been shown that the intensity and nature of interaction between the HB and the subsidiaries are prerequisites for capability development through experiential learning due to ensuring the HB knowledgeability about the subsidiaries' operations. Changes in the network can

affect such interaction, leading to the erosion of the HB's network management capabilities.

5.2. MANAGERIAL IMPLICATIONS

Chapter 1 concluded with a statement of a general concern that served as a main motivation for this work: '**How can an organisation with a global setup continuously maintain its capabilities and develop new ones to manage its globally dispersed operations network?**' This concern has further led us to the formulation of the research questions for our investigation. However, it is this particular concern that embodies the practical interest in answering these research questions. Therefore, in this section we will try to address this concern by summarising the potential implications for the managerial practice made by this research.

As the results showed, three activities are important for the HB in order to ensure continuous maintenance and development of its global network management capabilities: (1) Continuously monitor the 'weak signals' of capability destruction; (2) Avoid the 'boiling frog' effect; and (3) Avoid getting into the 'vicious cycle' of the offshoring drivers. We see the first of them as a continuous process that needs to be established and facilitated by the HB. In contrast, the two others represent processes to be applied at the time of any new offshoring initiative or network reconfiguration initiated by the HB. These activities will be further discussed in more detail.

(1) Continuously monitor the 'weak signals' of capability destruction

As emphasised in Paper 3, the HB's knowledgeability about the details of its subsidiaries' operations appeared to be the key to the effectiveness of its managerial capabilities. In relation to this, some researchers recommend the HB to continuously interact with key people at the subsidiaries, compensating them for the resources spent on such cooperation (Vahlne et al., 2012). However, continuous interaction with the subsidiaries can be a burden for the HB, located in a developed country, where resources are more expensive. Nevertheless, as the case company's experience showed, there is a possibility of organising this learning process in a sequential way that does not require continuous involvement of the HB into the subsidiaries' operations (Figure 5). The essence of this process lies in the continuous monitoring of the existing HB managerial capabilities for signs of obsolesce, and, as a result, timely updating the HB knowledge about the operations of the network

members through gaining knowledge of actual experiences at the sites. In detail, the process would consist of three steps, described further.

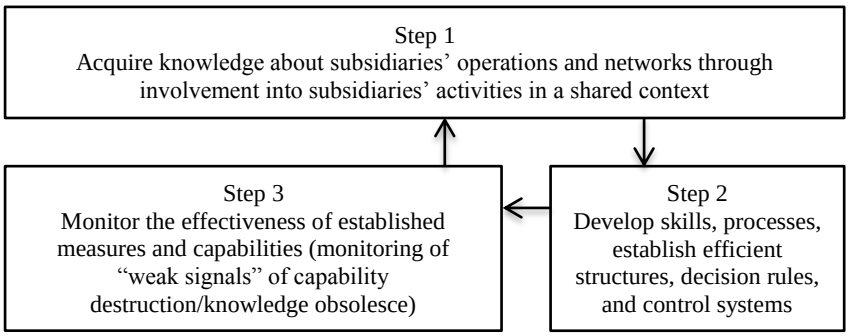


Figure 5. Process ensuring the sustainability of the HB managerial capabilities

Participation of the HB in the value-creating activities of the subsidiary is an important prerequisite for developing sufficient knowledge (Step 1) to develop capabilities, processes, routines, efficient structures, and decision rules to manage and oversee these operations without direct and continuous involvement in them (Step 2). Shared context between the HB and the subsidiary in Step 1 is important to facilitate interaction, through which experiential knowledge is developed. At the same time, due to the tendency of the subsidiary and HB contexts to grow apart, previously established measures may become obsolete. Therefore, there is a need to continuously monitor when this happens (Step 3). The practical instructions for the implementation of this step are outside of the scope of this work and open an avenue for further research regarding the 'weak signals' of capability destruction. However, some initial practical recommendations can be found in the works by, for example, Schreyögg and Kliesch-Eberl (2007). When such signals are detected, the HB needs to again get in touch with the experiences of the subsidiaries within the context of some shared activities (Step 1) to renew its capability base.

(2) *Avoid the 'boiling frog' effect*

Another lesson for practitioners lies in the need for a thorough planning of each offshoring or network reconfiguration decision, placing less trust into the previous successful experiences. In such a way, this work challenges the importance of experience in the range of offshoring performance determinants. Without any doubt, learning from such experiences is essential; however, as the case showed, changes in the network may easily make the reapplication of such experiences unfavourable. Moreover, the incrementalism of these changes may prevent the company from timely recognition of the insufficiency of the previous experience. For example,

while the company, having no previous offshoring experience, might take time and invest additional effort into preparation and planning of what arrangements and capabilities it may need, the company with some previous experience may be reluctant to recognise such needs in a timely manner.

Thus, as Paper 3 illustrates, the company's previous successful offshoring experience was connected to the reliance on the HB domestic operations. Therefore, the case company gradually endangered its ability to manage offshore operations when at the end of the process the reconfiguration led to the reduction in the connections between domestic and offshore operations. Continuing to rely on domestic operations in such circumstances, the case company became susceptible to a certain 'boiling frog' effect.

Therefore, this work supports the emerging organisational design perspective on offshoring (Larsen and Pedersen, 2014; Mukherjee et al., 2013). This perspective advocates that when making offshoring decisions, a firm needs to consider the possible implications of such decisions for the existing configuration of a firm's value chain activities. This may include the need for the firm-specific capabilities that will enable the subsequent reintegration of such activities. In light of this, the suggestions in Paper 2 can be used as a part of the offshoring risk-management practice, whereby the companies would try to consider the possible effects that any separate network reconfiguration decision may have in relation to particular network configuration elements (as described in the paper) to determine the potential need for particular new managerial capabilities at the HB. In such a way, the managerial capability considerations may also become an integral part of the offshoring strategy, adding a new question of 'In what way?' to the set of traditional offshoring strategy questions of 'What? Where? How?' to offshore (which were discussed in Chapter 1, Section 1.1).

(3) Avoid getting into the 'vicious cycle' of the offshoring drivers

It has been argued that the incrementalism of the offshoring decisions may lead the company to an unbearable resultant complexity of the global operations. To avoid such challenges, some researchers emphasise the importance of having and following a deliberate offshoring strategy (Ferdows, 2008; Massini et al., 2010). The findings of this work (as emphasised in **Paper 1**) illuminated another side of this issue: offshore network configuration decisions are often not only incremental, but also trigger one another. As a result, new reconfigurations may start being motivated by the need to resolve challenges, brought up by the previous reconfigurations, rather than by pursuing certain offshoring advantages. Consequently, such subsequent reconfigurations can cause higher costs, offsetting the benefits pursued

by the initial offshoring motive. Moreover, the subsequent reconfigurations may be caused by the need to relieve the resource consumption, created by the previous reconfigurations. Therefore, this work indicated a possibility of the changeability of the offshoring motives from opportunity seeking towards fighting internal complexity and performance implications. Such 'negative' changeability is opposed to the 'positive' changeability of the offshoring motives: from cost considerations to innovation seeking (Jensen, 2009; Maskell et al., 2007).

Therefore, the gradual loss of the offshoring focus may be suggested as another rason for challenges faced by the companies operating on the global basis (additional to the earlier mentioned absence of the offshoring strategy). In fact, as the case showed, the formulation of an offshoring strategy may be challenging for the company, unless it gains certain experience with global operations. Based on such arguments, the practitioners may be advised to monitor the alignment of every new network reconfiguration decision with the dominant offshoring motive, and compare the corresponding reconfiguration costs against the anticipated benefits of the initial reconfiguration initiative.

5.3. GENERAL CONCLUSIONS

Main contributions of this work were outlined in the two previous sections. Further, some additional conclusions will be highlighted in relation to general discussions of offshoring and global organizational networks.

- The first highlight relates to the general discussion of the importance of a central entity in the global network, and more precisely, the **importance of preserving a strong HB** in an intra-organisational global network.

The extant literature on offshoring has been concerned with the decreasing ability of European parent companies to compete cost-wise with their own operations abroad. Such challenges result in growing volumes of offshoring (both captive and outsourcing) as a response to the high cost of operations in the developed countries. Although the importance of preserving operations in-house is acknowledged and the dangers of 'hollowing out' have been outlined (Kotabe, 1989; Lee and Jung, 2015; Murray et al., 2014; Trefler, 2006), they are often hardly enough to justify carrying higher costs from preserving operations at the HB. It has been suggested that the Europe-based affiliates (or parent companies) should instead focus on higher-value-adding activities, innovation, and coordination of the offshore operations.

At the same time, the tendencies of higher-value-added functions to follow the lower- value ones in terms of propensity to be relocated are also described (Jensen, 2009; Lewin et al., 2009; Maskell et al., 2007). In relation to this, the present work showed that activities aimed at managing the offshore operations are also difficult to preserve in-house due to the tight connection of the related capabilities to the detailed knowledge of the offshore operations. Therefore, as the offshore volumes and capabilities of subsidiaries/partners grow, the related managerial capabilities preserved at the HB face an increasing pressure for the relocation, as well.

However, the case in this work also showed that the ability of technologically capable subsidiaries to effectively perform such managerial functions can be overestimated. After relocation of such functions to the subsidiaries, the latter struggled significantly to achieve the levels of effectiveness and competence previously ensured by the HB.

This may be well-illustrated and explained by the arguments provided by Vereecke and De Meyer (2009). These authors emphasise the manufacturing network as a network of knowledge, with innovations and information flowing between the factories. They also classify subsidiaries with respect to the role they play in such networking activities. One of such types is labelled as 'active network players', which are the factories that have established strong network relationships and both transfer innovations to the other factories, and benefit from the innovations developed elsewhere. While frequently hosting visitors from other factories, their employees also frequently travel to other facilities, as well. Such 'active network players' have different goals, require more resources to actually perform the networking, and, therefore, need to be permitted certain levels of inefficiency. Therefore, they are inevitably the 'expensive factories'. Moreover, their capabilities may be rooted in their location close to sources of knowledge or close to some specific expertise. Therefore, Vereecke and De Meyer (2009) argue that the relocation of such facilities is bound to be much more complicated and to render more challenges than that of the production or even the R&D subsidiaries.

Such arguments are well in-line with what has been observed in the case organisation in this work: the subsidiaries started to face challenges when they were delegated with managerial functions, i.e. when the organisation started relocating the parts of the HB responsibility – the 'active network player's' role. Therefore, the peculiarity of such a particular role may be an argument to support the need for preserving such functions (and other functions needed to enable such capabilities, such as production in our case) at the HB. It may be suggested that what seems to be inefficiency in a parent facility may just be an inherent part of the networking function that is performed by it. And if this function is delegated to the offshore

subsidiary, this inefficiency will be not only 'transferred' to the subsidiary, but is also likely to increase due to the lack of domain knowledge and required expertise. Therefore, the organisation is not only likely to under-achieve the desired cost savings, but to also experience additional performance problems.

- The results of this work may also be seen as an argument for the managers in favour of **preserving parts of production at the HB and refraining from extreme offshoring or offshore outsourcing.**

Similar existing arguments were based on, for example, the importance of links between the functions of new product development and manufacturing. It has been suggested that many product improvements require close links and interactions between manufacturing and product development, because the improved product will be produced by the already existing manufacturing system (Dankbaar, 2007; McDermott and Handfield, 2000). The compatibility of this product with this system needs to be ensured to ensure manufacturability of the product.

Similar arguments that may be put forward based on this work are based on the connectedness of the managerial capabilities to the distributed network resources, where maintaining common operations enables preservation of the HB connection to these resources. Therefore, we go even further, suggesting that not the in-house production as such, but the shared operations with the network members in particular, are important for the HB managerial capabilities. It may be suggested that network management capabilities are even more demanding than R&D or complex operational capabilities in terms of the need for knowledge and 'hands on' the offshored functions. This is because the HB network management capabilities are tightly connected to its dispersed and dynamic network. And this dynamism seems to be the main threat to the existing HB managerial capabilities (in addition to the reasons outlined by the previous studies, such as breaking of the interdependencies, the processes of forgetting, problems with motivation, and so on).

- This work can also be relevant for the topic of intra-organisational relationships within an MNE from the longitudinal perspective, concerning what happens to the **relationships between the centre and subsidiaries over time** (Michailova and Paul, 2014; Mugurusi and de Boer, 2013).

According to the literature, the HB-subsidiary relationships are important for the subsidiaries' performance and tend to get tighter with time. However, we observed a process of gradual 'distancing' of the HB from the subsidiaries as a result of activity links becoming a burden for the HB, causing the scarcity of its resources. Therefore, it can be suggested that the intensity of the activity links and resource scarcity at the

HB may be another mediator of the HB-subsidiary relationship (apart from the earlier suggested congruence between the system properties of the nodes and the environmental dynamism (Mugurusi and Deboyer, 2013)), promoting their dissolution, rather than tightening.

- Moreover, a contribution can be made to the research stream investigating the **relationships between the network structure and network outcomes**.

In particular, the results of this work answer the calls of the researchers, who argued that the networks literature has largely neglected properties other than network structure as determinants of organisational performance in the network (Gulati et al., 2011; Borgatti and Halgin, 2011; Zaheer and Bell, 2005). The results of this work support the views that the network management capability of the focal firm is an important mediating factor between network structure and outcomes (Capaldo, 2007).

- Another important point concerns the issue of **how resource endowments of an organisation affect its global network management capabilities**.

Previous research showed that globalisation is less challenging for larger companies than for their smaller counterparts, often lacking resources for operational and corporate support of their global operations (Roza et al., 2011). However, as the findings showed, the companies that are considered large (such as the case company) may face similar problems. It appears that the important aspect in maintaining the managerial capability at the HB lies in having a certain 'critical mass', in terms of the number of people and their capabilities, rather than the general notion of the organisation's size, as well as the challenge of the domestic resources utilisation to balance the local and global needs. Thus, in particular, at the case company, the resource scarcity was caused by the fact that network management tasks required thorough knowledge of the company's products and having certain experience in working with them. And it was very challenging for the company to find such employees outside the company. All of the people involved in global issues have been working at the HB for many years within domestic operations. Therefore, new tasks related to global operations have been added to the existing tasks of these employees. Thus, the resource scarcity here referred to the lack of experienced and qualified personnel to support the global operations, and the subsequent overload of the existing personnel.

Additionally, as advocated by Manning (2014), capability development is only one of a firm's possible responses to the offshoring challenges. Other options include the toleration of the challenging issue, or the relocation of the responsibility for its

resolution to the third party. Manning suggested that the larger the firm is, the more likely it is to mitigate offshoring challenges (through developing capabilities) rather than tolerate or relocate them. He also called for future research on the possible sequence of such responses from a longitudinal perspective. Responding to such a call, our results showed that a period of mitigation may be followed by the relocation (delegation of some managerial roles to the subsidiaries), motivated by the scarcity of resources at the HB and changed strategic objectives.

Such resource-centred discussion can also contribute to the previous discussion of possible negative impact of the offshoring experience with regard to the HB capabilities. Longer offshoring experience may mean that the company has mitigated and tolerated a significant number of challenges, which may have consumed a significant fraction of its resources. Therefore, the prevalent option such a company has for dealing with any subsequent challenges is relocation. In such a way, we have demonstrated a possible link between the offshoring experience and resource base of the firm, which may negatively impact the ability of the firm to develop new capabilities in the conditions of offshoring.

- Findings of this work can also be useful and informative for the discussions of **the reshoring trends present in many industries.**

As also suggested in Paper 4, the existing explanations and motives for reshoring have been largely found in the inability of offshoring companies to meet or maintain offshoring performance goals. However, the results of Paper 4 showed that the companies seem to be well-equipped and capable of accessing the offshoring advantages. Therefore, there is a certain ground to suggest that their primary reshoring reasons may be other than just an inability to reach performance targets. For example, some firms may have a deliberate managerial disposition towards preserving certain activities as a part of the home-base capabilities. Therefore, the results of this work may point to the need to restate the commonly discussed reshoring motives – from simply failing to perform abroad towards, perhaps, pursuing deliberate strategic goals.

Moreover, based on Papers 2 and 3, we can go as far as suggesting that reshoring decisions may be closer in nature to (or may be explained by) the 'pendulum' and dynamics in centralisation-decentralisation decisions of MNEs (Thomas et al., 2005). From such an angle, the offshoring-reshoring dynamics may be conditioned not by performance-based considerations, but power, capability, and resource considerations, as well as the HB concerns of maintaining knowledgeability about their global operations.

- This work can also contribute to the **discussions of the reverse knowledge transfer from the subsidiaries to the HB**.

The results showed that, indeed, the organisation can and should benefit from the capabilities and knowledge developed at the subsidiaries. Moreover, such transfer is very important for the HB to preserve its ability to influence and manage its subsidiaries. The extant literature discusses a variety of reasons preventing such reverse knowledge transfer, such as the lack of motivation of the source of knowledge to support a transfer, the lack motivation of a recipient to accept knowledge from an external source, the lack of perceived reliability of the source, the nature of the pre-existing relationship, and so on (Gupta and Govindarajan, 2000; Sun and Scott, 2005).

The main obstacle that was particularly evident in this work resided within the HB itself and was related to its motivation to cooperate with the subsidiaries and to both accept and share knowledge. This supports the arguments put forward by, for example, Ferdows (2008), that offshoring may have long-term negative consequences in terms affecting the morale of the company's employees. This also supports the importance of the philosophy of a transnational organization (Bartlett and Ghoshal, 1998), whereby the intra-organisational cooperation in the global context not only requires 'patching up' the morale of the employees; it rather requires a significant change in the mindset of the staff. Our work also indicated that continuous support and stimulation are required to maintain such mindset at the HB and their motivation to cooperate with the sites and treat them as partners in the same business, rather than as a burden or competition, require continuous support and stimulation.

Such a point can be supported by the work by Doz and Prahalad (2013), discussing the quality of management in the networked MNE as an increasing source of competitive advantage between global competitors. These authors argue that frequent changes in the organisation may result in confusion and anxiety among managers at all levels. Therefore, one of the important quality dimensions of management lies in the establishment of certain 'pivots' or stable emotional and intellectual 'roots' or 'basic principles' that would make frequent organisational change tolerable. The examples include common goals and shared missions or competing against a 'common enemy', supported with such tools as company songs, legends, and myths.

5.4. LIMITATIONS AND FURTHER RESEARCH

The main limitations of this work are connected to the chosen research strategy of a single case study. Although we tried to address such limitations with available means, such as increased reliance on the existing theories (as described in Chapter 3), the results of this study are rather suggestive. Replication of the research on multiple cases could improve the validity of the results.

Moreover, the managerial capabilities may potentially be different for MNEs operating in different industries. Therefore, replication of the research across various industries may be beneficial.

Additionally, the employment of the longitudinal study in real time, rather than retrospectively, can increase the quality of the data.

Also, the study has an obvious location-specific bias, as the HB of the company of Danish origin was the focus of the investigation. However, given the similar challenges faced by the European companies, certain generalizability may be expected.

Other limits to generalizability were also discussed in Chapter 3 (Section 3.6.3).

Additionally, the exploratory nature of this study assumes that the results and propositions outlined by it are expected to, hopefully, in themselves become the basis for future studies. Each paper in this thesis has already outlined certain suggestions for the future research. In order not to restate those points here, we will outline some additional general research directions:

- This work focused on the HB capabilities within the context of the production operations of the organisation. Future research could explicitly focus on exploring these issues in the context of other functions, such as procurement or R&D, comparing and contrasting their development, and illuminating possible interdependencies.

- The focus of this work was on the intra-organisational network. An obvious important research continuation may be expanding the range of investigated relationships towards the external partners of an organisation. This work showed that intra-organisational relations within an MNE require no less facilitation and maintenance than those with third-party organisations. Captive offshoring does not automatically imply preservation of control and partnership with network members. Therefore, the distinction between intra- and inter-organisational

networks is, to a certain degree, de-emphasised. Nevertheless, it could be useful to investigate the particular differences in this process, as well as the evolutionary trajectories it may have.

- This study offers a point of departure for connecting the HB managerial capabilities to the performance of the network and of the HB. However, it provides only limited insights, therefore leaving a space for the future research into how different performance dimensions of the separate network members and of the network as a whole may be impacted by the changes in the HB managerial capabilities.

REFERENCES

Agranoff, R. and McGuire, M. (1999), "Managing in network settings", *Policy Studies Review*, Vol. 16, No. 1, pp. 18-41

Agranoff, R. (2007), "Managing within Networks: Adding Value to Public Organizations", Washington, D.C.: Georgetown University Press.

Aksin, O. Z. and Masini, A. (2008), "Effective strategies for internal outsourcing and offshoring of business services: An empirical investigation", *Journal of Operations Management*, Vol. 26, No.2, pp. 239-256.

Ambos, B. and Mahnke, V. (2010), "How do MNC headquarters add value?", *Management International Review*, Vol. 50, No. 4, pp. 403-412.

Ambos, B., Asakawa, K., and Ambos, T. C. (2011), "A dynamic perspective on subsidiary autonomy", *Global Strategy Journal*, Vol. 1, No. 3-4, pp. 301-316.

Amit, R. and Schoemaker, P.J. (1993), "Strategic assets and organisational rent", *Strategic Management Journal*, Vol. 14, pp. 33-46.

Anderson, E. G., Davis-Blake, A., Erzurumlu, S., Joglekar, N. and Parker, G. (2007), "The effects of outsourcing, offshoring, and distributed product development organization on coordinating the NPD process" in Loch, C. and Kavadias, S. (Ed.), *Handbook on new product development management*, Elsevier, pp. 1-23

Aron, R., and Singh, J. V. (2005), "Getting offshoring right", *Harvard business review*, Vol. 83, No. 12, pp. 135-43.

Arya, B. and Lin, Z. (2007), "Understanding collaboration outcomes from an extended resource-based view perspective: the roles of organizational characteristics, partner attributes, and network structures", *Journal of Management*, Vol. 3, No. 5, pp. 697-723.

Barner-Rasmussen, W., Piekkari, R., Scott-Kennel, J., and Welch, C. (2010), "Commander-in-chief or absentee landlord? Key perspectives on headquarters in multinational corporations", in Andersson, U. and Holm, U. (Ed.), *Managing the contemporary multinational: The role of headquarters*, Cheltenham, UK: Edward Elgar, pp. 85-105.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of management*, Vol. 17, No.1, pp. 99-120.

Barthelemy, J. (2003), "The seven deadly sins of outsourcing", *The Academy of Management Executive*, Vol. 17, No. 2, pp. 87-98.

Bartlett, C. A. and Ghoshal, S. (1998), *Managing across borders: The transnational solution* (Vol. 2), Harvard Business School Press.

Becker, M. and Zirpoli, F. (2003), "Organising new product development knowledge hollowing-out and knowledge integration – the FIAT auto case", *International Journal of Operations & Production Management*, Vol. 23 No. 9, pp. 1033-61

Bengtsson, L. and Dabhilkar, M. (2009), "Manufacturing outsourcing and its effect on plant performance—lessons for KIBS outsourcing", *Journal of evolutionary economics*, Vol. 19, No. 2, pp. 231-257.

Berggren, C. and Bengtsson, L. (2004), "Rethinking Outsourcing in Manufacturing: A Tale of Two Telecom Firms", *European Management Journal*, Vol. 22, No. 2, pp. 211-223.

Bernard, H. R., Killworth, P., Kronenfeld, D. and Sailer, L. (1984), "The Problem of Informant Accuracy: The Validity of Retrospective Data", *Annual Review of Anthropology*, Vol. 13, No. 1, pp. 495-517.

Borgatti, S.P. and Halgin, D.S. (2011), "On network theory", *Organization Science*, Vol. 22, No. 5, pp. 1168-1181.

Buckley, P. J. (1990), "Problems and developments in the core theory of international business", *Journal of International Business Studies*, Vol. 21, No. 4, pp. 657-665.

Bunyaratavej, K., Hahn, E. D. and Doh, J. P. (2008), "Multinational investment and host country development: Location efficiencies for services offshoring", *Journal of World Business*, Vol. 43, No. 2, pp. 227-242

Busi, M. and McIvor, R. (2008), "Setting the outsourcing research agenda: the top-10 most urgent outsourcing areas", *Strategic Outsourcing: An International Journal*, Vol. 1, No. 3, pp. 185-197

Camilo Dávila, J. (2010), "The creation of organizational capabilities: evidence from a multinational company", *Management Research: Journal of the Iberoamerican Academy of Management*, Vol. 8, No. 3, pp. 183-202.

Cannon, J. P., Achrol, R. S. and Gundlach, G. T. (2000), "Contracts, norms, and plural form governance", *Journal of the Academy of Marketing Science*, Vol. 28, No. 2, pp. 180-194.

Capaldo, A. (2007), "Network structure and innovation: The leveraging of a dual network as a distinctive relational capability", *Strategic management journal*, Vol. 28, No. 6, pp. 585-608.

Carmel, E. and Agarwal, R. (2006), "The maturation of offshore sourcing of information technology work", in *Information systems outsourcing*, Springer Berlin Heidelberg, pp. 631-650.

Cerruti, C. (2008), "The impact of offshoring on firm competitiveness", *Transition Studies Review*, Vol. 15, No. 1, pp. 145-156.

Cheng, Y., Farooq, S. and Johansen, J. (2014), "Global Operations: A Review and Outlook", in Johansen, J, Farooq, S. and Cheng, Y. (Ed.), *International Operations Networks*, Springer London, pp. 161-179.

Cheng, Y., Farooq, S., and Johansen, J. (2015), "International manufacturing network: past, present, and future", *International Journal of Operations & Production Management*, Vol. 35, No. 3, pp. 392-429.

Choi, T. Y., and Hong, Y. (2002), "Unveiling the structure of supply networks: case studies in Honda, Acura, and DaimlerChrysler", *Journal of Operations Management*, Vol. 20, No. 5, pp. 469-493.

Ciabuschi, F., Dellestrand, H. and Holm, U. (2012), "The role of headquarters in the contemporary MNC", *Journal of International Management*, Vol. 18, No. 3, pp. 213-223.

Ciabuschi, F., Dellestrand, H. and Martín, O. M. (2011), "Internal Embeddedness, Headquarters Involvement, and Innovation Importance in Multinational Enterprises", *Journal of Management Studies*, Vol.48, No. 7, pp.1612-1639.

Cohen, W. M. and Levinthal, D. A. (1990), "Absorptive capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, Vol. 35, No. 1, pp. 128-152.

Colakoglu, S., Yamao, S. and Lepak, D. P. (2014), "Knowledge creation capability in MNC subsidiaries: Examining the roles of global and local knowledge inflows and subsidiary knowledge stocks", *International Business Review*, Vol. 23, No. 1, pp. 91-101.

Collis, D. J. (1994), "Research note: How valuable are organizational capabilities?", *Strategic Management Journal*, Vol. 15 (S1), pp. 143-152.

Conner, K.R. and Prahalad, C.K. (1996), "A resource-based theory of the firm: Knowledge versus opportunism", *Organization Science*, Vol. 7, No. 5, pp. 477–501.

Contractor, F. J., Kumar, V., Kundu, S. K. and Pedersen, T. (2010), "Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions", *Journal of Management Studies*, Vol. 47, No. 8, pp. 1417-1433.

Cox, A. (1996), "Relational competence and strategic procurement management: Towards an entrepreneurial and contractual theory of the firm", *European Journal of Purchasing & Supply Management*, Vol. 2, No. 1, pp. 57-70.

Dankbaar, B. (2007), "Global sourcing and innovation: The consequences of losing both organizational and geographical proximity", *European Planning Studies*, Vol. 15, No.2, pp. 271-288.

De Marchi, V., Di Maria, E. and Ponte, S. (2014), "Multinational Firms and the Management of Global Networks: Insights from Global Value Chain Studies", in Pedersen, T., Venzin, M., Devinney, T.M., Tihanyi, L. (Ed.), *Orchestration of the Global Network Organization (Advances in International Management, Volume 27)* Emerald Group Publishing Limited, pp.463 - 486.

Dekkers, R. (2011), "Impact of strategic decision making for outsourcing on managing manufacturing", *International Journal of Operations & Production Management*, Vol. 31, No. 9, pp. 935-965.

Demirbag, M., Mellahi, K., Sahadev, S. and Elliston, J. (2012), "Employee service abandonment in offshore operations: A case study of a US multinational in India", *Journal of World Business*, Vol. 47, No. 2, pp. 178-185.

Dhanaraj, C. and Parkhe, A. (2006), "Orchestrating innovation networks", *Academy of management review*, Vol. 31, No. 3, pp. 659-669.

Doh, J. P. (2005), "Offshore outsourcing: implications for international business and strategic management theory and practice", *Journal of Management Studies*, Vol. 42, No. 3, pp. 695-704.

Dosi, G., Nelson, R.R., Winter, S.G. (2002), *The Nature and Dynamics of Organizational Capabilities*, Oxford University Press

Doz, Y. and Prahalad, C. K. (2013), "Quality of management: An emerging source of global competitive advantage?", in Hood, N. and Vahlne, J.E. (Ed.), *Strategies in Global Competition (RLE International Business): Selected Papers from the Prince Bertil Symposium at the Institute of International Business*, Routledge, pp. 345-368.

Dubois, A., and Gadde, L. E. (2002), "Systematic combining: an abductive approach to case research", *Journal of business research*, Vol. 55, No. 7, pp. 553-560.

Dunning, J. H. (2001), "The eclectic (OLI) paradigm of international production: past, present and future", *International journal of the economics of business*, Vol. 8, No. 2, pp. 173-190.

Dutta, S., Narasimhan, O. M. and Rajiv, S. (2005), "Research notes and commentaries conceptualizing and measuring capabilities: Methodology and empirical application", *Strategic Management Journal*, Vol. 26, No. 3, pp. 277-285.

Dyer, J.H. and Nobeoka, K. (2000), "Creating and managing a high performance knowledge sharing network: the Toyota case", Strategic Management Journal, Vol. 21, No. 3, pp. 345–367.

Eisenhardt, K. M. (1989), "Building theories from case study research", *Academy of management review*, Vol. 14, No. 4, pp. 532-550.

Ellegaard, C., Johansen, J. and Drejer, A. (2003), "Managing industrial buyer-supplier relations-the case for attractiveness", *Integrated Manufacturing Systems*, Vol. 14, No. 4, pp. 346-356.

Elter, F., Gooderham, P. N. and Ulset, S. (2014), "Functional-Level Transformation in Multi-Domestic MNCs: Transforming Local Purchasing into Globally Integrated Purchasing", *Orchestration of the Global Network Organization*, Vol. 27, pp. 99-120.

Ernst, D. and Kim, L. (2002), "Global production networks, knowledge diffusion, and local capability formation", *Research policy*, Vol. 31, No. 8, pp. 1417-1429.

Fang, G., Ma, X., Ren, L. and Zhou, Q. (2014), "Antecedents of Network Capability and Their Effects on Innovation Performance: An Empirical Test of Hi-tech Firms in China", *Creativity and innovation management*, Vol. 23, No. 4, pp. 436-452.

Farrell, D. (2005), "Offshoring: Value creation through economic change", *Journal of Management Studies*, Vol. 42, No. 3, pp. 675-683.

Farrell, D. (2006), "Smarter offshoring", *Harvard Business Review*, Vol. 84, No. 6, pp. 84-92.

Feldmann, A., Olhager, J., Fleet, D., and Shi, Y. (2013), "Linking networks and plant roles: the impact of changing a plant role", *International Journal of Production Research*, Vol. 51, No. 19, pp. 5696-5710.

Ferdows, K. (1997), "Made in the world: The global spread of production", *Production and Operations Management*, Vol. 6, No. 2, pp. 102-109

Ferdows, K. (2008), "Managing evolving global production networks", in Galvan R. (Ed), *Strategy Innovation and Change: Challenges for Management*, Oxford, Oxford, pp.149-162.

Ferdows, K. (2014), "Relating the firm's global production network to its strategy", in Johansen, J, Farooq, S. and Cheng, Y. (Ed.), *International Operations Networks*, Springer London, pp. 1-11.

Fisher, C. (2004), *Researching and Writing a Dissertation for Business Students*, Pearson Education Ltd, Essex.

Forsgren, M. and Holm, U. (2010), "MNC headquarters' role in subsidiaries' value-creating activities: A problem of rationality or radical uncertainty", *Scandinavian Journal of Management*, Vol. 26, No. 4, pp. 421-430.

Forsgren, M., Holm, U. and Johanson, J. (2005), *Managing the embedded multinational: A business network view*, Cheltenham, UK: Edward Elgar Publishing

Foss, K., Foss, N. J. and Nell, P. C. (2012), "MNC organizational form and subsidiary motivation problems: Controlling intervention hazards in the network MNC", *Journal of International Management*, Vol. 18, No. 3, pp. 247-259.

Funk, C.A., Arthurs, J.D., Treviño, L.J. and Joireman, J. (2010), "Consumer animosity in the global value chain: the effect of international production shifts on willingness to purchase hybrid products", *Journal of International Business Studies*, Vol. 41, No. 4, pp. 639–651.

Gadde, L. E., Huemer, L. and Håkansson, H. (2003), "Strategizing in industrial networks", *Industrial Marketing Management*, Vol. 32, No. 5, pp. 357-364.

Gammelgaard, J., McDonald, F., Stephan, A., Tüselmann, H. and Dörrenbächer, C. (2012), "The impact of increases in subsidiary autonomy and network relationships on performance", *International Business Review*, Vol. 21, No. 6, pp. 1158-1172.

Gammeltoft, P. (2006), "Internationalisation of R&D: trends, drivers and managerial challenges", *International journal of technology and globalisation*, Vol. 2, No.1, pp.177-199

Gereffi, G., Humphrey, J. and Sturgeon, T. (2005), "The governance of global value chains", *Review of international political economy*, Vol. 12, No. 1, pp. 78-104.

Ghoshal, S. and Bartlett, C. A. (1990), "The multinational corporation as an interorganizational network", *Academy of management review*, Vol. 15, No. 4, pp. 603-626.

Gilley, K. M. and Rasheed, A. (2000), "Making more by doing less: An analysis of outsourcing and its effects on firm performance", *Journal of Management*, Vol. 26, No. 4, pp. 763-790.

Giroud, A. and Scott-Kennel, J. (2009), "MNE linkages in international business: A framework for analysis", *International Business Review*, Vol. 18, No. 6, pp. 555-566.

Gomes, P. J. and Dahab, S. (2010), "Bundling resources across supply chain dyads: The role of modularity and coordination capabilities", *International Journal of Operations & Production Management*, Vol. 30, No. 1, pp. 57-74.

Gooderham, P. N. and Ulset, S. (2002), "Beyond the M-form: Towards a Critical Test of the New Form", *International Journal of the Economics of Business*, Vol. 9, No. 1, pp. 117-138.

Goold, M. and Campbell, A. (2002), "Parenting in complex structures", *Long Range Planning*, Vol. 35, No. 3, pp. 219-243.

Grant, R. M. (1996), "Toward a knowledge-based theory of the firm", *Strategic management journal*, Vol. 17, No. S2, pp. 109-122.

Gray, J. V., Skowronski, K., Esenduran, G. and Rungtusanatham, M. J. (2013), "The reshoring phenomenon: what supply chain academics ought to know and should do", *Journal of Supply Chain Management*, Vol. 49, No. 2, pp. 27-33.

Gui, L. (2010), "Reshaping the boundaries of the firm: Global value chains and lead firm strategies", in Pla-Barber, A., J. and Alegre, J. (Ed.), *Reshaping the boundaries of the firm in an era of global interdependence. Progress in international business research*, Volume 5, Emerald Group Publishing Limited, UK, pp. 29-55.

Gulati, R., Lavie, D. and Madhavan, R. R. (2011), "How do networks matter? The performance effects of interorganizational networks", *Research in Organizational Behavior*, Vol. 31, No. 207-224.

Gupta, A. K. and Govindarajan, V. (1991), "Knowledge flows and the structure of control within MNCs", *Academy of Management Review*, Vol. 16, No. 4, pp. 768–792.

Gupta, A. K. and Govindarajan, V. (2000), "Knowledge flows within multinational corporations", *Strategic management journal*, Vol. 21, No. 4, pp. 473-496.

Håkansson, H. and Ford, D. (2002), "How should companies interact in business networks", *Journal of Business Research*, Vol. 55, No. 2, pp. 133-139.

Halinen, A. and Törnroos, J. Å. (2005), "Using case methods in the study of contemporary business networks", *Journal of Business Research*, Vol. 58, No. 9, pp. 1285-1297.

Harland, C. M., Lamming, R. C., Zheng, J. and Johnsen, T. E. (2001), "A taxonomy of supply networks", *Journal of Supply Chain Management*, Vol. 37, No. 3, pp. 21-27.

Harrington, T. S., Kirkwood, D. A. and Srai, J. S. (2012), "Performance metric selection methodology for multi-organizational service network integration", *Journal of Applied Management and Entrepreneurship*, Vol. 17, No. 3, pp. 20-35

Hätönen, J. and Eriksson, T. (2009), "30+ years of research and practice of outsourcing–Exploring the past and anticipating the future", *Journal of International Management*, Vol. 15, No. 2, pp. 142-155.

Heikkinen, M. T., Mainela, T., Still, J. and Tähtinen, J. (2007), "Roles for managing in mobile service development nets", *Industrial Marketing Management*, Vol. 36, No. 7, pp. 909-925.

Helfat, C. E. and Peteraf, M. A. (2003), "The dynamic resource-based view: capability lifecycle", *Strategic management journal*, Vol. 24, No. 10, pp. 997-1010.

Herrigel, G. and Zeitlin, J. (2010), "Inter-firm relations in global manufacturing: disintegrated production and its globalization", in Campbell, J., Morgan, G. and Crouch, C. (Ed.), *The Oxford Handbook in Comparative Institutional Analysis*, Oxford University Press, Oxford, pp. 527-564.

Huberman, M. and Miles, M. B. (2002), *The qualitative researcher's companion*, Sage.

Human, S. E. and Provan, K. G. (1997), "An emergent theory of structure and outcomes in small-firm strategic manufacturing networks", *Academy of Management Journal*, Vol. 40, No. 2, pp. 368–403.

Hurmelinna-Laukkanen, P., Olander, H., Blomqvist, K. and Panfilii, V. (2012), "Orchestrating R&D networks: Absorptive capacity, network stability, and innovation appropriability", *European Management Journal*, Vol. 30, No. 6, pp. 552-563.

Hutzschenreuter T., Lewin A. Y. and Dresel S. (2011), "Governance modes for offshoring activities: A comparison of US and German firms", *International Business Review*, Vol. 20, No. 3, pp. 291-313.

Järvensivu, T. and Möller, K. (2009), "Metatheory of network management: A contingency perspective", *Industrial Marketing Management*, Vol. 38, No. 6, pp. 654-661.

Jarvensivu, T. and Rajala, R. (2013), "To Produce, Co-produce, Enable or Co-enable? The Art of Balancing Managerial Action in Inter-Organizational Networks", *International Journal of Business Administration*, Vol. 4, No. 1

Jensen, P. D. Ø. (2009), "A learning perspective on the offshoring of advanced services", *Journal of international Management*, Vol. 15, No. 2, pp. 181-193.

Johanson, J. (2004), "Theory is not reality", in Marschan-Piekkari, R. and Welch, C. (Ed.), *Handbook of qualitative research methods for international business*, Edward Elgar Pub, Cheltenham, pp. 3-4.

Johanson, J. and Vahlne, J. (1977), "The internationalization process of the firm: a model of knowledge development and increasing foreign market commitments", Journal of International Business Studies, Vol. 8 No. 1, pp. 23-32.

Kale, P. and Singh, H. (2007), "Building firm capabilities through learning: the role of the alliance learning process in alliance capability and firm-level alliance success", *Strategic Management Journal*, Vol. 28, No. 10, pp. 981-1000.

Kale, P. and Singh, H. (2009), "Managing strategic alliances: What do we know now, and where do we go from here", *Academy of management perspectives*, Vol. 23, No. 3, pp. 45-62.

Kedia, B. L. and Mukherjee, D. (2009), "Understanding offshoring: A research framework based on disintegration, location and externalization advantages", *Journal of World Business*, Vol. 44, No. 3, pp. 250-261.

Kedia, B. L. and Mukherji, A. (1999), "Global managers: Developing a mindset for global competitiveness", *Journal of World Business*, Vol. 34, No. 3, pp. 230-251.

Knight, L. and Harland, C. (2005), "Managing Supply Networks: Organizational Roles in Network Management", *European Management Journal*, Vol. 23, No. 3, pp. 281-292.

Kolb, D., Boyatzis, R. and Mainemelis, C. (2001), "Experiential learning theory: Previous research and new directions", *Perspectives on Thinking, Learning, and Cognitive Styles*, Vol. 1, pp. 227-247.

Kotabe, M. (1989), "Hollowing-out" of US multinationals and their global competitiveness: an intrafirm perspective, *Journal of Business Research*, Vol. 19, No. 1, pp. 1-15.

Kotabe, M., Mol, M. J., Murray, J. Y. and Parente, R. (2012), "Outsourcing and its implications for market success: negative curvilinearity, firm resources, and competition", *Journal of the Academy of Marketing Science*, Vol. 40, No. 2, pp. 329-346.

Kotabe, M., Mol, M.J. and Ketkar, S. (2008), "An evolutionary stage model of outsourcing and competence destruction: a triad comparison of the consumer electronics industry", *Management International Review*, Vol. 48, No. 1, pp. 65–94.

Kumar, K., van Fenema, P. C. and Von Glinow, M. A. (2009), "Offshoring and the global distribution of work: Implications for task interdependence theory and practice", *Journal of International Business Studies*, Vol. 40, No. 4, pp. 642-667.

Lacity, M. C., Willcocks, L. P. and Rottman, J. W., (2008), "Global outsourcing of back office services: lessons, trends, and enduring challenges", *Strategic Outsourcing: An International Journal*, Vol. 1, No. 1, pp. 13-34.

Lacity, M. and Willcocks, L. (2014), "Business process outsourcing and dynamic innovation", *Strategic Outsourcing: An International Journal*, Vol. 7, No. 1, pp. 66-92.

Lampel, J., Shamsie, J. and Shapira, Z. (2009), "Experiencing the improbable: Rare events and organizational learning", *Organization Science*, Vol. 20, No. 5, pp. 835-845.

Lampel, J. and Bhalla, A. (2011), "Living with offshoring: The impact of offshoring on the evolution of organizational configurations", *Journal of World Business*, Vol. 46, No. 3, pp. 346-358.

Larsen, M. M. and Pedersen, T. (2014), "Organizational Reconfiguration and Strategic Response: The Case of Offshoring", *Orchestration of the Global Network Organization (Advances in International Management*), Emerald Group Publishing Limited, Vol. 27, pp. 403-432.

Larsen, M. M., Manning, S. and Pedersen, T. (2013), "Uncovering the hidden costs of offshoring: The interplay of complexity, organizational design, and experience", *Strategic Management Journal*, Vol. 34, No. 5, pp. 533-552.

Lavie, D. (2006), "The competitive advantage of interconnected firms: an extension of the resource-based view", *Academy of Management Review*, Vol. 31, No. 3, pp. 638-58.

Lee, K. and Jung, M. (2015), "Overseas factories, domestic employment, and technological hollowing out: a case study of Samsung's mobile phone business", *Review of World Economics*, Vol. 151, No. 3, pp. 1-15.

Lei, D. and Hitt, M.A. (1995), "Strategic restructuring and outsourcing: the effect of mergers and acquisitions and LBOs on building firm skills and capabilities", *Journal of management*, Vol. 21, No. 5, pp. 835-859.

Lewin, A. Y., Massini, S. and Peeters, C. (2009), "Why are companies offshoring innovation? The emerging global race for talent", *Journal of International Business Studies*, Vol. 40, No. 6, pp. 901-925.

Madhok, A. (2002), "Reassessing the fundamentals and beyond: Ronald Coase, the transaction cost and resource-based theories of the firm and the institutional structure of production", *Strategic Management Journal*, Vol. 23, pp. 535-550.

Mahmood, I. P., Zhu, H. and Zajac, E. J. (2011), "Where can capabilities come from? Network ties and capability acquisition in business groups", *Strategic Management Journal*, Vol. 32, No. 8, pp. 820-848.

Malnight, T. W. (1995), "Globalization of an ethnocentric firm: An evolutionary perspective", *Strategic Management Journal*, Vol. 16, No. 2, pp. 119-141.

Malnight, T. W. (1996), "The transition from decentralized to network-based MNC structures: An evolutionary perspective", *Journal of International Business Studies*, Vol. 27, No. 1, pp. 43-65.

Manning, S., Hutzschenreuter, T. and Strathmann, A. (2013), "Emerging capability or continuous challenge? Relocating knowledge work and managing process interfaces", *Industrial and Corporate Change*, Vol. 22, No. 5, pp. 1159–1193.

Manning, S. (2014), "Mitigate, tolerate or relocate? Offshoring challenges, strategic imperatives and resource constraints", *Journal of World Business*, Vol. 49, No. 4, pp. 522-535.

Martínez-Noya, A. and García-Canal, E. (2011), "Technological capabilities and the decision to outsource/outsource offshore R&D services", *International Business Review*, Vol. 20, No. 3, pp. 264-277

Maskell, P., Pedersen, T., Petersen, B. and Dick-Nielsen, J. (2007), "Learning paths to offshore outsourcing: From cost reduction to knowledge seeking", *Industry and Innovation*, Vol. 14, No.3, pp. 239-257.

Mason S. J. (2002), "Improving electronics manufacturing supply chain agility through outsourcing", International, *Journal of Physical Distribution & Logistics Management*, Vol. 32, No. 7, pp. 610-620.

Massini, S., Pern-Ajchariyawong, N. and Lewin, A. Y. (2010), "Role of corporate-wide offshoring strategy on offshoring drivers, risks and performance", *Industry and Innovation*, Vol. 17, No. 4, pp. 337–371.

Mauri, A. J. and de Figueiredo, J. N. (2012), "Strategic patterns of internationalization and performance variability: effects of US-based MNC cross-border dispersion, integration, and outsourcing", *Journal of International Management*, Vol. 18, No. 1, pp. 38-51.

McDermott, C. and Handfield, R. (2000), "Concurrent development and strategic outsourcing: Do the rules change in breakthrough innovation?", *The Journal of High Technology Management Research*, Vol. 11, No. 1, pp. 35-57.

McGuire, M. (2002), "Managing Networks: Propositions on What Managers Do and Why They Do It", *Public administration review*, Vol. 62, No. 5, pp. 599-609.

McIvor, R. (2005), *The Outsourcing Process: Strategies for Evaluation and Management*, Cambridge University Press, Cambridge

Medcof, J. W. (2001), "Resource-based strategy and managerial power in networks of internationally dispersed technology units", *Strategic Management Journal*, Vol. 22, No. 11, pp. 999-1012.

Mediavilla, M., Errasti, A., Domingo, R. and Martínez, S. (2012), "Value chain based framework for assessing the Ferdows' strategic plant role: an empirical study", in Frick, J. and Laugen, B.T. (Ed.), *Advances in Production Management Systems. Value Networks: Innovation, Technologies, and Management*, Springer Berlin Heidelberg, pp. 369-378.

Michailova, S. and Paul, S. (2014), "To Orchestrate MNC Intra-Firm Relationships, One Needs to Understand them", *Orchestration of the Global Network Organization (Advances in International Management),* Vol. 27, pp. 377-402.

Mol, M. J. (2005), "Does being R&D intensive still discourage outsourcing? Evidence from Dutch manufacturing", *Research Policy*, Vol. 34, No. 4, pp. 571-582.

Mol, M.J., Van Tulder, R.J.M. and Beije, P.R. (2005), "Antecedents and performance consequences of international outsourcing", *International Business Review*, Vol. 14, No. 5, pp. 599–617

Möller, K., Rajala, A. and Svahn, S. (2005), "Strategic business nets—their type and management", *Journal of Business Research*, Vol. 58, No. 9, pp. 1274-1284.

Möller, K., Svahn, S., Rajala, A. and Tuominen, M. (2002), "Network management as a set of dynamic capabilities", paper presented at 18th Annual IMP Conference, September 5-7, Dijon, France, available at http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.6513&rep=rep1&type=pdf (accessed 24 August 2015).

Mudambi, R. and Venzin, M. (2010), "The strategic nexus of offshoring and outsourcing decisions", *Journal of Management Studies*, Vol. 47, No. 8, pp. 1510-1533.

Mugurusi, G. and de Boer, L. (2013), "What follows after the decision to offshore production? A systematic review of the literature", *Strategic Outsourcing: An International Journal*, Vol. 6, No. 3, pp. 213-257.

Mukherjee, D., Gaur, A. S. and Datta, A. (2013), "Creating value through offshore outsourcing: An integrative framework", *Journal of International Management*, Vol. 19, No. 4, pp. 377-389.

Murray, J. Y., Kotabe, M. and Westjohn, S. A. (2009), "Global sourcing strategy and performance of knowledge-intensive business services: a two-stage strategic fit model", *Journal of International Marketing*, Vol. 17, No. 4, pp. 90-105.

Nambisan, S. and Sawhney, M. (2011), "Orchestration processes in network-centric innovation: Evidence from the field", *The Academy of Management Perspectives*, Vol. 25, No. 3, pp. 40-57.

Nassimbeni, G. (1998), "Network structures and co-ordination mechanisms: a taxonomy", *International Journal of Operations & Production Management*, Vol. 18, No. 6, pp. 538-554.

Nell, P. C. and Ambos, B. (2013), "Parenting advantage in the MNC: An embeddedness perspective on the value added by headquarters", *Strategic Management Journal*, Vol. 34, No. 9, pp. 1086-1103.

Nieto, M. J. and Rodríguez, A. (2011), "Offshoring of R&D: Looking abroad to improve innovation performance", *Journal of International Business Studies*, Vol. 42, No. 3, pp. 345-361.

O'Donnell, S. W. (2000), "Managing foreign subsidiaries: agents of headquarters, or an interdependent network?", *Strategic management journal*, Vol. 21, No. 5, pp. 525-548.

Orton, J. D. and Weick, K. E. (1990), "Loosely coupled systems: A reconceptualization", *Academy of Management Review*, Vol. 15, pp. 203-223.

Parkhe, A., Dhanaraj, C. and Alan, M. R. (2003), "Orchestrating globally: managing the multinational enterprise as a network", *Research in Global Strategic Management*, Vol. 8, pp. 197-214.

Paulraj, A., Lado, A. A. and Chen, I. J. (2008), "Inter-organizational communication as a relational competency: Antecedents and performance outcomes in collaborative buyer–supplier relationships", *Journal of operations management*, Vol. 26, No. 1, pp. 45-64.

Peng, D. X., Schroeder, R. G. and Shah, R. (2008), "Linking routines to operations capabilities: A new perspective", *Journal of Operations Management*, Vol. 26, No. 6, pp. 730-748.

Pihl, H. (2008), "Transnational tendencies in multinational enterprises", *Baltic Journal of Management*, Vol. 3, No. 3, pp. 328–345

Pihl, H. and Paulsson, A. (2014), "The Omnipotent MNC–A Review and Discussion", *Orchestration of the Global Network Organization*, Vol. 27, pp. 213-233.

Plambeck, E.L. and Taylor, T.A. (2005), "Sell the plant? The impact of contract manufacturing on innovation, capacity, and profitability", *Management Science*, Vol. 51, No. 1, pp. 133–150.

Ponte, S. and Ewert, J. (2009), "Which Way is Up in Upgrading? Trajectories of Change in the Value Chain for South African Wine. World Development", Vol. 37, pp. 1637–1650.

Prahalad, C. K. and Hamel, G. (2006), *The core competence of the corporation*, Springer Berlin Heidelberg.

Prasad, S. and Babbar, S. (2000), "International operations management research", *Journal of Operations Management*, Vol. 18, pp. 209-247.

Protogerou, A., Caloghirou, Y. and Lioukas, S. (2012), "Dynamic capabilities and their indirect impact on firm performance", *Industrial and Corporate Change*, Vol. 21, No. 3, pp. 615-647.

Provan, K.G. and Milward, H.B. (1995), "A preliminary theory of interorganizational network effectiveness: a comparative study of four mental health systems", *Administrative Science Quarterly*, Vol. 40, pp. 1–33.

Provan, K. G. (1993), "Embeddedness, interdependence, and opportunism in organizational supplier-buyer networks", *Journal of Management*, Vol. 19, No. 4, pp. 841-856.

Provan, K. G. and Kenis, P. (2008), "Modes of network governance: Structure, management, and effectiveness", *Journal of public administration research and theory*, Vol. 18, No. 2, pp. 229-252.

Rahmandad, H. and Repenning, N. (2015), "Capability erosion dynamics", *Strategic Management Journal*, doi: 10.1002/smj.2354

Rao, R. D. and Argote, L. (2006), "Organizational learning and forgetting: The effects of turnover and structure", *European Management Review*, Vol. 3, No. 2, pp. 77-85.

Ray, G., Barney, J. B. and Muhanna, W. A. (2004), "Capabilities, business processes, and competitive advantage: Choosing the dependent variable in empirical

tests of the resource-based view", *Strategic Management Journal*, Vol. 25, No. 1, pp. 23-37.

Ritala, P., Armila, L. and Blomqvist, K. (2009), "Innovation orchestration capability—Defining the organizational and individual level determinants", *International Journal of Innovation Management*, Vol. 13, No. 4, pp. 569-591.

Ritter, T. and Gemünden, H. G. (2003), "Network competence: Its impact on innovation success and its antecedents", *Journal of Business Research*, Vol. 56, No. 9, pp. 745-755.

Ritter, T., Wilkinson, I.F. and Johnston, W.J. (2002), "Measuring Network Competence: Some International Evidence", *Journal of Business & Industrial Marketing*, Vol. 17, pp. 119–138.

Rosenzweig, E. D. and Roth, A. V. (2004), "Towards a theory of competitive progression: Evidence from High-Tech manufacturing", *Production and Operations Management*, Vol. 13, No. 4, pp. 354-368.

Roza, M., Van den Bosch, F. A. and Volberda, H. W. (2011), "Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms", *International Business Review*, Vol. 20, No. 3, pp. 314-323.

Rudberg, M. and Olhager, J. (2003), "Manufacturing networks and supply chains: an operations strategy perspective", *Omega: The International Journal of Management Science*, Vol. 31, pp. 29-39

Rugman, A.M. and Verbeke, A. (2004), "A perspective on regional and global strategies of multinational enterprises", *Journal of International Business Studies*, Vol. 35, No. 1, pp. 3–18.

Ruokonen, M., Nummela, N., Puumalainen, K. and Saarenketo, S. (2006), "Network management – the key to the successful rapid internationalisation of the small software firm?", *International Journal of Entrepreneurship and Innovation Management*, Vol. 6, No. 6, pp. 554-572.

Schmeisser, B. (2013), "A systematic review of literature on offshoring of value chain activities", *Journal of International Management*, Vol. 19, No. 4, pp. 390-406.

Schmid, S. and Schurig, A. (2003), "The development of critical capabilities in foreign subsidiaries: disentangling the role of the subsidiary's business network", *International business review*, Vol. 12, No. 6, pp. 755-782.

Schreyögg, G. and Kliesch-Eberl, M. (2007), "How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization", *Strategic Management Journal*, Vol. 28, No.9, pp. 913-933.

Sirmon, D. G., Hitt, M. A. and Ireland, R. D. (2007), "Managing firm resources in dynamic environments to create value: Looking inside the black box", *Academy of Management Review*, Vol. 32, No. 1, pp. 273-292.

Slack, N., Saunders, M. and Cameron, S. (2006), *Operations management*, New Jersey: Prentice Hall.

Slepniov, D. and Sørensen, B. V. (2007), "The Role of Evolving Task Interdependencies in the Offshoring Process", Paper presented at Ledelse fra viden til handling, Aarhus, Denmark, available at http://vbn.aau.dk/ws/files/14142287/The_role_of_evolving_task_interdependences_DS_BVW.pdf (accessed 24 August 2015).

Slepniov, D., Waehrens, B. V. and Jørgensen, C. (2010), "Global operations networks in motion: Managing configurations and capabilities", *Operations Management Research*, Vol. 3, No. 3-4, pp. 107-116.

Sluyts, K., Matthyssens, P., Martens, R. and Streukens, S. (2011), "Building capabilities to manage strategic alliances", *Industrial Marketing Management*, Vol. 40, No. 6, pp. 875-886.

Snow, C. C., Miles, R. E. and Coleman Jr, H. J. (2000), "Managing 21st century network organizations", in McLoughlin, I., Preece, D. and Dawson, P. (Ed.), *Technology, Organizations, and Innovation: Critical Perspectives on Business and Management*, Routledge, pp. 1621-1638.

Spring, M. and Araujo, L. (2014), "Indirect capabilities and complex performance: Implications for procurement and operations strategy", *International Journal of Operations & Production Management*, Vol. 34, No. 2, pp. 150-173.

Srai, J. S. and Gregory, M. (2008), "A supply network configuration perspective on international supply chain development", *International Journal of Operations & Production Management*, Vol. 28, No. 5, pp. 386-411.

Srikanth, K. and Puranam, P. (2011), "Integrating distributed work: comparing task design, communication, and tacit coordination mechanisms", *Strategic Management Journal*, Vol. 32, No. 8, pp. 849-875.

Stake, R. E. (1994), "Case studies", in Denzin, N. K. and Lincoln, Y.S. (Ed.), *Handbook of qualitative research*, pp. 236-247.

Stephan, M. and Silvia, M. (2008), "A dynamic perspective on next-generation offshoring: The global sourcing of science and engineering talent", *The Academy of Management Perspectives*, Vol. 22, No.3, pp. 35-54.

Sun, P.Y. and Scott, J.L. (2005), "An investigation of barriers to knowledge transfer", *Journal of knowledge management*, Vol. 9, No. 2, pp. 75-90.

Svahn, S. and Westerlund, M. (2007), "The modes of supply net management: a capability view", *Supply Chain Management: An International Journal*, Vol. 12, No. 5, pp. 369-376.

Teece, D. J., Pisano, G. and Shuen, A. (1997), "Dynamic capabilities and strategic management", *Strategic management journal*, Vol. 18, No. 7, pp. 509-533.

Terpend, R., Tyler, B. B., Krause, D. R. and Handfield, R. B. (2008), "Buyer–supplier relationships: Derived value over two decades", *Journal of Supply Chain Management*, Vol. 44, No. 2, pp. 28-55.

Thomas, C., Kaminska-Labbe, R. and McKelvey, B. (2005), "Managing the MNC and exploitation/exploration dilemma: From static balance to dynamic oscillation", *Advances in strategic management: Expanding perspectives on the strategy process*, Vol. 22, pp. 213-250.

Tondolo, V. A. G., Kaynak, H., de Souza, Y. S. and Bitencourt, C. C. (2011), "Offshore operations capabilities: an exploratory study", *Journal of Operations and Supply Chain Management*, Vol. 4, No. 2, pp. 31-42.

Trefler, D., Rodrik, D. and Antràs, P. (2005), "Service Offshoring: Threats and Opportunities", *Brookings Trade Forum*, pp. 35–73, available at http://www.jstor.org/stable/25058762

Tsoukas, H. (1996), "The firm as a distributed knowledge system: A constructionist approach", *Strategic Management Journal*, Vol. 17, pp. 11—25.

Vahlne, J. E. and Johanson, J. (2014), "Replacing Traditional Economics with Behavioral Assumptions in Constructing the Uppsala Model: Toward a Theory on the Evolution of the Multinational Business Enterprise (MBE)", *Multidisciplinary Insights from New AIB Fellows (Research in Global Strategic Management)*, Vol.16, pp. 159-176.

Vahlne, J. E., Ivarsson, I. and Johanson, J. (2011), "The tortuous road to globalization for Volvo's heavy truck business: Extending the scope of the Uppsala model", *International Business Review*, Vol. 20, No. 1, pp. 1-14.

Vahlne, J. E., Schweizer, R. and Johanson, J. (2012), "Overcoming the liability of outsidership—the challenge of HQ of the global firm", *Journal of International Management*, Vol. 18, No.3, pp. 224-232.

Vahlne, J. E. & Johanson, J. (2013), "The Uppsala model on evolution of the multinational business enterprise: From internationalization to coordination of networks", *International Marketing Review*, Vol. 30, No. 3, pp. 189-208.

Van de Ven, A. H. and Huber, G. P. (1990), "Longitudinal field research methods for studying processes of organizational change", *Organization science*, Vol. 1, No. 3, pp. 213-219.

Verbeke, A. (2003), "The evolutionary view of the MNE and the future of internalization theory", *Journal of International Business Studies*, Vol. 34, No. 6, pp. 498-504.

Vereecke, A. and De Meyer, A. R. N. O. U. D. (2009), "*The dynamic management of manufacturing networks"* (No. 2009-15), Vlerick Leuven Gent Management School

Vereecke, A., Van Dierdonck, R. and De Meyer, A. (2006), "A typology of plants in global manufacturing networks", *Management Science*, Vol. 52, No. 11, pp. 1737-1750.

Vlaar, P. W., van Fenema, P. C. and Tiwari, V. (2008), "Cocreating understanding and value in distributed work: How members of onsite and offshore vendor teams give, make, demand, and break sense", *MIS quarterly*, Vol. 32, No. 2, pp. 227-255.

Volberda, H. W. and Lewin, A. Y. (2003), "Co-evolutionary dynamics within and between firms: From evolution to co-evolution", *Journal of management studies*, Vol. 40, No. 8, pp. 2111-2136.

Wach, K. (2014), "Theoretical Framework of the Firm-Level Internationalisation in Business Studies" in Duréndez, A. and Wach K. (Ed.), *Patterns of Business Internationalisation in Visegrad Countries – In Search for Regional Specifics*, Cartagena: Universidad Politécnica de Cartagena, pp. 13-30.

Wegner, D. and Padula, A. D. (2010), "Governance and management of horizontal business networks: an analysis of retail networks in Germany", *International Journal of Business and Management*, Vol. 5, No. 12, pp. 74-88.

Weick, K. E. and Roberts, K. H. (1993), "Collective mind in organizations: Heedful interrelating on flight decks", *Administrative science quarterly*, Vol. 38, No. 3, pp. 357-381.

Weigelt, C. (2009), "The impact of outsourcing new technologies on integrative capabilities and performance", *Strategic Management Journal*, Vol. 30, No. 6, pp. 595-616.

Williamson, O. (1971), "The vertical integration of production: market failure considerations", American Economic Review, Vol. 61, No. 2, pp. 112-123.

Winter, S. G. (2003), "Understanding dynamic capabilities", *Strategic management journal*, Vol. 24, No. 10, pp. 991-995.

Wu, S. J., Melnyk, S. A. and Flynn, B. B. (2010), "Operational capabilities: The secret ingredient", *Decision Sciences*, Vol. 41, No. 4, pp. 721-754.

Yin, R. K. (2003), *Case study research: Design and methods*, Sage Publications

Youngdahl, W. and Ramaswamy, K. (2008), "Offshoring knowledge and service work: a conceptual model and research agenda", *Journal of Operations Management*, Vol. 26, No. 2, pp. 212-221.

Youngdahl, W. E., Ramaswamy, K. and Dash, K. C. (2010), "Service offshoring: the evolution of offshore operations", *International Journal of Operations & Production Management*, Vol. 30, No. 8, pp. 798-820.

Zaheer, A. and Bell, G.G. (2005), "Benefiting from network position: firm capabilities, structural holes, and performance", *Strategic Management Journal*, Vol. 26, No. 9, pp. 809-825.

Zaheer, A. and Venkatraman, N. (1995), "Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange", Strategic management journal, Vol.16, No. 5, pp. 373-392.

PART 2. COLLECTION OF RESEARCH PAPERS

Paper 1

"Globalization of a multi-domestic MNE: process and drivers", Alona Mykhaylenko, Brian Vejrum Wæhrens. The paper was submitted for publication to the "Baltic Journal of Management".

Paper 2

"Managing global operations networks: evolution of the home base capabilities and control mechanisms", Alona Mykhaylenko, Brian Vejrum Wæhrens. This paper was submitted for publication to the "European Management Journal".

An earlier and shorter version of this paper has been presented at APMS 2015 International Conference in Advances in Production Management Systems, September 5-9, Tokyo, Japan. The paper was published in conference proceedings:

Mykhaylenko, A., Wæhrens, B. V., & Johansen, J. (2015). Managing Evolving Global Operations Networks. In *Advances in Production Management Systems: Innovative Production Management Towards Sustainable Growth* (pp. 524-531). Springer International Publishing. DOI http://dx.doi.org/10.1007/978-3-319-22756-6_64

Paper 3

"Impact of distance on home-base network management capabilities", Alona Mykhaylenko, Brian Vejrum Wæhrens, Dmitrij Slepniov. This paper was invited for the submission to (and is currently under the review at) the "Journal of Manufacturing Technology Management" special issue of papers presented at EurOMA 2015 conference.

An earlier and shorter version of this paper has been presented at 22nd International EurOMA Conference, June 26 – July 1, 2015, Neuchâtel, Switzerland:

Mykhaylenko, A., Wæhrens, B.V., Slepniov, D. (2015), "Impact of distance on the network management capability of the home base firm", paper presented at 22nd International EurOMA Conference, June 26 – July 1, 2015, Neuchâtel, Switzerland, available at http://vbn.aau.dk/ws/files/219800453/Impact_of_distance_on_network_management_capability_of_the_home_base_firm_Euroma_2015.pdf (accessed 3 December, 2015).

Paper 4

Mykhaylenko, A., Motika, Á., Waehrens, B. V., & Slepniov, D. (2015). Accessing offshoring advantages: what and how to offshore. *Strategic Outsourcing: An International Journal*, *8* (2/3). http://dx.doi.org/10.1108/SO-07-2015-0017

An earlier and shorter version of this paper has been presented at 21st International EurOMA Conference, 2014, Palermo, Italy:

Mykhaylenko, A., Motika, A., Wæhrens, B.V., Slepniov, D. (2014), "Offshoring and access to location-specific advantages - the impact of governance mode and function", presented at the 21st International EurOMA Conference, 2014, Palermo, Italy, available at http://vbn.aau.dk/ws/files/208244301/Offshoring_and_access_to_location_specific_advantages_the_impact_of_governance_mode_and_function.pdf (accessed on 3 December 2015).

ISSN (online): 2246-1248
ISBN (online): 978-87-7112-457-6

AALBORG UNIVERSITY PRESS